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EDITORIAL

HEALTH INSURANCE AND MEDICAL EDUCATION.

The appeal for doctors by rural communities grows stronger every day and as yet it has not been met. Our suggestion of state provision of medical services is too radical for early adoption, though it cannot be disputed that sooner or later it must come to this disposition of the need of the people.

Medical schools generally are taxed to the utmost in meeting the

present requirements in medical instruction to their students. Most medical schools find it difficult to maintain a properly balanced schedule upon the funds available and nearly all of them spend on the student about as much as the student pays over and above what the student pays, and this seems necessary in order to provide the required courses. This is accomplished through available endowment, as far as this goes, and through the voluntary services of the majority of the men who do the teaching. To adequately provide the instruction for the medical student of today means an annual outlay of from $350 to $400. Few schools charge the student more than $200 and many charge less than that; medical departments of state universities charge only nominal fees, for instance.

Quite a number of the states have realized the importance of aiding the schools for professional training and the allowances have been ample to meet all requirements. The facilities for administering such education, however, are restricted so that the number of students at such schools must be limited and it is logical to expect that the greater number of students would be drawn from the state affording such instruction.

Other states with less interested legislatures have medical colleges which are either a part of the state university or of endowed universities and in which nothing like adequate endowment or provision obtains.

The time has come when the public should have what it needs and what it demands. At the same time the public should be prepared to pay for this. If the rural districts are deprived of medical attendants, because the cities attract most physicians and because the compensation is better, the supply to the country must be met.

While the medical schools are regularly reducing the number of students by high standards and by enforced economy in administration, the population of the country continues to grow and the need of doctors is constant and not decreasing. The people, then, are responsible for their own lack of medical service and they may correct this either by raising endowment to conduct medical schools for the public benefit or by instructing their state legislators to provide the ways and means for such service. It may be done by the state assuming that medical schools render public service and by providing means by allowing a budget to cover the costs of maintaining schools or the legislatures can broaden the function of the state health boards by providing ways and means for the appoint-

ment of doctors under state pay so that these may be assigned wherever and whenever they may be needed. In the 1890's Belgium had adopted such a plan of Health Insurance and within the last two years Great Britain has brought about a similar plan. The public should pay and if the time is ripe for such legislation, it should come soon.

AMERICAN PUBLIC HEALTH ASSOCIATION.

If we may judge by the bouquets, both from official and non-official sources, thrown to the local committee of arrangements for the forty-seventh annual meeting of this association, held in New Orleans on October 27 to 30, this session was the best ever.

The total attendance was 1020, every part of the country was represented, many eminent sanitarians were present, the scientific and the commercial exhibits were numerous and interesting, and practically everybody was well pleased.

The weather man behaved pretty well although, in his enthusiasm to show many visitors a contrast, he gave us a temperature higher than the average for that time of the year.

The entertainments were numerous enough, well managed and apparently much enjoyed by the membership.

The program of the general sessions included papers especially on malaria, influenza, details of public health administration and work of prevention in the Southern States. The section on industrial hygiene handled the methods of ascertaining the fitness of individuals for the various types of work; the questions of heating, lighting and ventilation in factories; the practical application of scientific engineering to the removal of nuisances and the prevention of disease conveyed by polluted water. The sociological section studied chiefly the problems bearing upon home life in the industries.

President Lee K. Frankel's annual address embodied a plea for a coordination of national health activities, claiming that public health is an asset equal in importance to commerce and agriculture and deserving of equal recognition in our conception of government.

He reported that the number of members of the association and subscribers to its Journal was above 4500, that its income for the last fiscal year was about $34,000 and that for the first time in

its history the association is not only self-sustaining but with a surplus in the treasury.

The officers elected for the ensuing year are: President, W. S. Rankin, M. D., of North Carolina; vice-presidents, A. J. Douglas, M. D., of Manitoba, S. L. Jepson, M. D., of West Virginia; W. H. Robin, of Louisiana; treasurer, G. H. Sumner, M. D., Iowa; secretary, A. W. Hedrich, C. P. H., of Massachusetts, re-elected.

Our local committee, headed by City Health Officer W. H. Robin, deserves great credit for the manner in which it handled the convention.

THE MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

Asheville wept for most of the time of the Southern Medical Association meeting, November 10 to 13; that is to say it rained or was misty most of the time. This seemed to interfere in no way with the work of the various sections, which were in every way successful. The discussions in the sections on medicine and surgery were of interest, which was discounted by the fact that there were too many papers on both programs, which limited the discussions proportionately.

The inclement weather prevented much of the expected enjoyable outings in the "Land of the Sky," but to those who went for the meeting's sake, nothing more could have been asked.

The interest of the ex-presidents was noted in the presence of all but one of them and a registration of over one thousand made another record, for Asheville it too much out of the way to make it ideal for a meeting place and at least one of the hotels needs much rehabilitation to make it desirable for a pleasure jaunt.

The next place of meeting will be Louisville, Kentucky. Dr. E. H. Cary, of Dallas, Texas, was made President; Dr. Seale Harris remaining as Secretary-Treasurer.

ORIGINAL ARTICLES

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

THE CONTROL OF VENEREAL DISEASE.*

By DR. WM. EDLER,
Scientific Assistant, U. S. Public Health Service, New Orleans.

Assuming that the primary function of the physician is to prevent rather than cure disease, and taking as an axiomatic truth the fundamental proposition that disease is the greatest dissipator of human energy that is known to mankind—with these premises granted, I come to you as a representative of the Public Health Service of this country to put squarely and candidly and succinctly before you as physicians a problem as complex as it is enigmatical and as worthy of your conscientious effort and energy as any that has ever confronted organized medicine.

I take for granted that you and I agree that the biologic struggle for existence is not so much between man and man, as it is between man and bacteria. As the years have gone by and as medicine has progressed, just in that proportion have the socalled "constitutional" and idiopathic diseases been, through the realms of research, added to the classifications of infections. And, hand in hand, in precisely the same ratio, as have developed the nomenclature and the classification of bacterial diseases, so, too, has grown the great science of prophylactic medicine.

Smallpox and typhoid fever are not entities any more, their presence in a community is merely a reflection of the medical aptitude of the general, social and economic standing of the people in that particular locality. And the time is coming, or am I prematurely optimistic in saying, the time is here, when a community with a large percentage of venereal disease will be looked upon by the nation as a decidedly unhealthy and economically precarious place to survive. Up to a year or two ago it was considered good civic taste to have a tenderloin district with all its retinue of procurers, panderers, pimps and prostitutes. No one stopped to think that it cost a community millions of dollars annually to maintain such a district, and of course no one (and

* Read at 40th Annual Meeting Louisiana State Medical Society, Shreveport, La., April 8, 9, 10, 1919.

sad to relate only few of us outside of physicians has realized the grim and ghastly toll in agony and anguish in disease and death. Had our municipal governments established on some prominent street a drinking place seductively arranged with a sweet tasting nectar invitingly blended so as to entice every one, and then polluted it with typhoid bacilli, they could not have more successfully vitiated the health of the community.

Now, if you will pardon all this preliminary talk, I will come down to our immediate proposition.

We said in the beginning that disease was the greatest of all dissipators of human energy. Little did we know that of all the diseases *venereal* disease creates more havoc in our daily lives than all the other infectious diseases put together. For this information we can thank the war and the army statistics. The army statistics tell us that there were more sick days through venereal disease than from all other infections. But, you tell me in reply, that venereal disease and soldiers are synonymous terms. And in answer to that I will tell you that venereal disease was not an army malady, but a civilian one; that out of this great preponderance of venereal disease per centum as related to other infectious diseases, it did not originate in the army, but was gratuitously presented to it by your state and 47 other states. Not only was this true relatively, but it was so forcibly true that the statistics show that for every six cases of venereal diseases recorded in the army statistics *five* of them came from civil life. In other words, in this was venereal disease was not an army problem, but a civilian one. We protected the man in uniform, while the community where he came from infected him. So that to reason logically the proper way to win a war is to take all your prostitutes and wish them on the enemy. In that way you would rid your own community of a parasite and a plague and foist upon the enemy a spike for their guns that would be unparalleled. Would it interest you to know that 75 per cent of the soldiers in the Franco-Prussian War were venereally diseased?

Now listen, we have rid the army of venereal disease; we have taken every soldier and made him uninfectious to his home community before he was discharged; we have taught him the rudiments of sex hygiene and impressed him, as well as we knew how, with pictures, lectures and pamphlets that sexual promiscuity and venereal disease go hand in hand and that both are degrading and

demoralizing; and, we, having done our part in the army of soldiers, are offering our help to you to protect an army of workers, an emergency, if you please, that is always and eternally present, and I ask you men as physicians to lend a hand and meet us on a common ground and work for a common purpose to fight a common foe. How can you help? Listen:

In the first place you can report every case of venereal disease in your practice. This is obligatory under your state laws and is very necessary to the government as a means of correlating their work, as well as for purposes of impressing legislators with the necessity for continuing this work. For the past 5 months there have been less than 1000 cases reported in this state, showing an apathy to the work or an ignorance of the law that should at once be rectified.

Second: You can by your every effort help to stamp out prostitution. You will find it a difficult work; not, as your sophists will tell you, that it is necessary to protect the decent women of your community; not because your boy must sow his wild oats and must have venereal exercise; not because a restricted district is the lesser of the two evils of "scattered" clandestine prostitution, but because prostitution is an organized, commercialized industry, well equipped with all the adjuncts and accessories of any organized, commercial institution from the advertising department down to the guaranteed or money refunded commodity. Do not be deluded that the "regulated," "medically examined," "passed by the censor" type of prostitute is either safe or sanitary. Cemetery is the proper adjective, because in the law of averages from a mathematical standpoint the "safe" prostitute does not exist—*There ain't no such animal.* All have venereal disease, and while the occasional one is not infectious she certainly always is potentially so. If you are a live wire in your community, you can arouse public sentiment to the point where tolerant public officials to these evils will either have to stand up for the ideals of the decent people, who elected them—for no community has a preponderance of indecent ones—or you can force them to openly align themselves with the interests they represent. This has successfully been accomplished in many cities where the political regime soon learned that they *did* possess the legal machinery and the pep and power to abolish their tenderloin districts, once they knew the public was thinking of making a political change. No

one has the opportunity to mould public opinion better than you, as a physician. You are a part of the family life of your patients, and by education, by civic activity, through boards of health and in public lectures you can paraphrase the slogan of the soldier from "to make the world safe for democracy" to "to make it risky for debauchery."

No state in the union has better laws to do this than your own. Every contingency is covered legally. There is no excuse, and best of all your motive is as altruistic as humans can be. Every case of venereal disease you prevent will be a monetary loss to you. You can go before the public and show them there is nothing up your sleeve.

Your state has $29,000 to spend for this work. The U. S. Government is spending $4,000,000 to educate the public and eradicate the prostitute.

Does it do any good to carry on this propaganda? Listen: One of the little northwestern states 5 years ago inaugurated a campaign against venereal disease and prostitution. By suppression of red light districts and the education of its citizens it accomplished the remarkable result of sending into the army a body of men who, from a percentage standpoint, ranked lowest from venereal disease infection of any state in the union. The little state of Oregon claims this honor. Truly a record to be proud of. Your state ranked thirty-eighth. Surely a record to be improved. How can you improve it? Here are the rules that will put you at the top of the list:

1. Report your venereal cases.
2. Put the lid on your town.
3. Send every prostitute to a detention hospital until she is non-infectious.
4. If you do not treat venereal disease, refer the person to a reputable man who does, instead of brusquely evading his malady.
5. Work to put every advertising quack out of business. He is a part of the tenderloin organized machinery.
6. See that your druggist does not counter-prescribe for these cases. It is against the law for him to do so.

And, lastly, remember you and I have a job on our hands that needs tact, energy, perseverance and a confidence that is engendered by the fact that we know our work is not for today or tomorrow,

but that our efforts in combatting disease leaves its imprint on the race, as well as throws its shadow well before. If I read rightly the public will soon realize that Health, Wealth and Happiness are synonyms, and when it does we shall find that it does not cost 1/100 as much to keep well as to get well, to all of which we pledge, as physicians, all that we are or hope to be.

DISCUSSION OF DR. EDLER'S PAPER.

Dr. C. L. Chassaignac, New Orleans: The two points to which I wish to call attention are these: Of course there should not be any antagonism between the civilian population and the army on this question any more than any other, but I do not think it is exactly logical to make a comparison of the prevalence of venereal disease in the civil population and the army population. The doctor tells us it is not the soldier who got the venereal disease, but the civil population who got it and sent it to the army. Why? Certainly nine-tenths of our army was composed of people from civil life. However, this is purely an academic question. The practical thing I want to call your attention to is this. Whenever we are told about the advisability, the necessity of controlling venereal disease, with all of which I agree, of course, we are given various means for stopping the progress of this disease—education, picture shows, etc. But one point I do not hear mentioned. As Dr. Chandler said, we are not here as moralists, we are here as physicians, and consequently I am at a loss to understand why the doctor in his list of various things to be done did not mention prophylaxis. It is done in the army and in the navy. In fact, I believe it is contended that nothing showed such great results as prophylaxis. There might be some objection from the moral standpoint to any suggestion of escaping from the penalty of transgressing the moral law, but we are dealing with facts. There are a great many things that might be the result of transgressing the moral law, but that is no reason why we should not treat those not yet suffering from this disease by prophylaxis, especially if it does not interfere with anything we may do to control the disease. I am not objecting to any of the points so ably presented by the doctor. We should have education, we should have the doing away of the restricted districts. I agree with everything he has told us, but I cannot understand why he should not add the proper use of prophylaxis for those who have been exposed. Not long ago I asked a legal friend of mine about this and he said he thought the point was well taken. I asked him if it would be morally wrong to suggest such a possibility, and here is his reply to me: If in a certain locality there should be an aggregation of thugs, we of course would teach the good citizens that they should not go to that section, that it is dangerous. In addition to that the police authorities certainly should clear out the gang. But these two propositions being correct, it is not meant that we should not indicate to men who for one reason or another nevertheless go there that they should take a gun along.

Dr. Francis S. Furman: I would like to ask if we as a community are contemplating the establishment of a prophylaxis station. I think it is pretty generally recognized that the reason the army had as little venereal disease as it did was due to the fact that it had prophylaxis

stations and the men were compelled to avail themselves of it, because if they did not and contracted venereal disease they had to face a court martial. They availed themselves of it in nearly all instances I am convinced. Now these men are coming back home. They are already beginning to go to the doctor asking for just that work. Is there anything being done to furnish prophylaxis stations where men who have been so foolish as to expose themselves can be treated? I believe prophylaxis stations would accomplish more than the suppression of prostitution.

Dr. Gardner: That is contemplated in clinics, but not otherwise in civilian life, so far as I have learned it has not amounted to anything. In the army there was court martial in front of the man, but in civil life he takes the risk.

Dr. —— Gardner, (guest): I have no disposition to take the time of the State Medical Society in the discussion of this very important subject, as inviting as it might be. But I do wish to bring to you the assurance that the Government at Washington, through the function of the Public Health Service, and especially the Division on Venereal Disease Control, wishes to extend to you most cordial sympathy and cooperation in the eradication of this greatest curse that has ever been upon the human race. We all recognize the fact that every true practitioner of medicine is really a public health officer serving without pay. I repeat that the Government proposes to enter into definite and hearty cooperation with you in this feature of your work. It does not propose to come with coercion, but with sympathetic cooperation; not to preach to you with regard to your moral duty and obligation to your people, but simply recognizing the fact that your heart is already open and alive to the crying need of your people in regard to this particular matter. Neither does the Public Health Service enter into this work to create any new agencies for the carrying on of this work, but to use the agencies which you have already instituted for the prosecution of the work through the State Health Boards and the local boards and institutions which you have already created and are fostering. As for my part in this work as regional consultant in the States of Alabama, Mississippi and Louisiana, I shall be glad to cooperate with you in carrying forward the work of clinics, in standardizing the reports of clinics and cooperating with you in your local work or community work wherever you think I may be needed at the discretion of the State Health officials, the local authorities and the individual practitioners.

Dr. M. W. Swords: This is a subject to which I have given much attention. It is a subject in no wise new. Gonorrhea and its manifestations date back to the Old Testament. If you read the fifteenth chapter of Leviticus you will find a clear and accurate description of gonorrhea. True, a disease that causes more ills than all other diseases that human flesh is heir, is certainly a peril and a menace to society and to the human race. No one will doubt that statement for a moment. But I believe firmly that while vice is not necessary to the welfare of man, yet it is a part and parcel of man. God Almighty has endowed man with certain strong impressions that are evidenced often in his earliest days. That is not only true of man. The Almighty for the purpose of guaranteeing the continuation of procreation firmly established that principle in human—beast, fish and fowl. Each of your farm boys could demonstrate that statement by going into your farm lot each morning.

Therefore I say again that vice is unfortunately a part and parcel of man's being.

No doubt vice should be regulated, and as Dr. Chandler has said that regulation should be by education and not legal suppression. To strike directly at the prostitute is the smallest part of the active factor in the regulation of venereal disease. The prostitute in order to ply her trade must necessarily remain in good health. She learns the art of prophylaxis, she learns the virtue of a good syringe and a little lysol, she knows what cleanliness means, therefore she protects her business by protecting her body, which in a measure is a protection to the man who visits the house of prostitution. It is always by the clandestine route, by the little girl you meet on the street, the girl who is not plying the trade except to have a good time and make a little pin money to buy a new dress, who does not take any of the precautions adopted by the prostitute. If you are going to eradicate this disease it is by education, by educating the boy and girl to know the danger of these diseases; to the girl to know what it really means to her as the mother of children, and to the father also. You must teach the boys and girls what prophylaxis means; how to protect themselves. is a matter of education and you will not stamp out this disease by putting the prostitutes out of business. In the first place, you do not know the number of prostitutes in a town, for unfortunately in late years the worst house of assignation is the automobile. The object of reporting your cases is that it acts as a sort of barometer; it shows the Board of Health where work should be done, and with education and reporting your cases you are accomplishing a great deal in the control of this disease.

Dr. R. H. Blackman, Shreveport: This discussion, I should think would be a great help to the State Board of Health in eradicating this disease, but it seems it has taken a very wide range. Inasmuch as most cities have already taken measures to stamp out legalized vice, we as physicians should deal with it very strictly.

As to the point mentioned by Dr. Swords, that the most of this disease comes not from the professional prostitute but from the shop-girl, if this be true, is it not also true that with legalized prostitution stamped out, we would have a gradual stamping out of the disease? The shop-girl would not be so accessible to the disease and is it not true that these girls get the disease by coming in contact with men who have visited the houses of prostitution at some time? Because, as was well said, all professional prostitutes at some time have had venereal disease, I feel it should be stressed that by eliminating the prostitute you would also get rid of the nucleus, or the focus of infection, and in time this disease will be eradicated.

If, as has been said, "gonorrhea causes more distress and suffering than any other disease to which the human flesh is heir," certainly syphilis runs it a close second, when men like Warthin, of Michigan University, reports that in his autopsy work forty per cent of the cases show evidence of syphilis, and this not in a large city, but in a hospital where most of the cases come from the country districts. If this condition prevails in the country districts, what must it be in larger communities? So syphilis must run gonorrhea a close second in its fearful toll of human life, and we as medical men should do all in our power to control, as much as possible, both syphilis and gonorrhea.

Dr. William Edler, (closing): I am sure we all agree that this is an immense question and that meeting it will tax our wit and ingenuity. But I want to submit to you as a hard fact that there is only one reason for venereal disease and that is sexual intercourse; and equally as hard a fact that to make intercourse hard to find necessarily limits sexual infection. I believe this is self-evident to all of us. In any community where there is an advertised district, where young men can go, and not only can go but are expected to go when they come to the city—if there are no such places that they can easily find they will not become venereally infected. That has been a factor in the reduction of venereal disease in the army. We did not restrict prostitutes in the army, we annihilated them. They were not there around the camp, because every effort was made to actually put them out of business, to make their business unprofitable, and although medicinal prophylaxis did have something to do with it, this was the large factor in controlling the disease. I told you about Oregon and the effect of the suppression of prostitutes on their soldiers in the draft. Not over two per cent. of their men had venereal disease, and that is an argument that is more than a coincidence to me.

I do agree with all the gentlemen have said about sexual intercourse as a physiological proposition, that we all have sexual ambitions and appetites, but I do not believe we as physicians should actually commit ourselves to any public policy of teaching the laity that they have a right to pamper artificially this sexual appetite that does exist. In other words, we are in danger of making this physiological factor a pathological one, if you please.

So far as the prostitutes are concerned, whether they use lysol or whether they do not, I want to repeat that my personal opinion is that I do not believe there can be a prostitute that is not or has not been venereally infected. There is only one thing that could keep her from being venereally infected, and that is an immunity either natural or acquired.

So far as prophylaxis stations are concerned, that is a problem we have tried hard to settle. We do not turn down the man who comes to us and says he has been venereally exposed. Whether we as physicians should go to the laity and tell them "If you will come to us after you have been exposed we will protect you and see that you do not get venereal disease,"—I want you to consider what you are going to submit to them. At one time in the navy it was proposed that no man could leave a boat at port without a prophylactic package, so-called. The presumption was that every man would visit a bawdy house—an insult to the sailor. Many of them did not, many went to the Y. M. C. A., some played cards and did other things. It was finally abandoned, I am glad to say.

I want to repeat that the problem is complex, it embraces economic and sociological factors, the passions of human beings; and yet I do submit to you that in any community where the public will arouse itself the prime factor is putting down the red-light district, for the clandestine prostitute gets her infection, whether directly or indirectly, from the man who visits the houses of prostitution. All I ask is that you realize that opportunity is a large factor in venereal disease, and if the opportunity is not there certainly you will be able to control a great deal of your infection.

CONTROL OF VENEREAL DISEASE.*

PAUL J. GELPI, A. M., M. D., New Orleans.

If the world war has caused havoc and destruction unparalleled in history, it has also left in its wake much for which mankind must be grateful. It has enriched both medicine and surgery with new stores of knowledge and novel methods of treatment. It has furnished valuable statistics chief among which is the amazing fact that out of 1,000,000 draft men three (3) per cent were infected with venereal diseases. This has been the starting point of the great moral wave which has found expression in a movement for the nation-wide control of venereal diseases.

It is the hugest task ever undertaken by preventative medicine. What makes the problem so complex is not only the universal prevalence of venereal diseases, but also its intimate association with the sexual instinct, sociological and economic questions and even the marital relations. Conditions as they exist today have been handed down to us from the remotest times and civilized nations have grappled with them with more or less success. We have the great advantage of having begun the fight under unusually favorable circumstances and it is now only a question of continuing what was originally intended as a war measure. We have a better knowledge of venereal diseases, we know the specific organism of the venereal triad, we have improved methods of treatmnt and prophylaxis and we possess besides the advantage of control of laboratory tests all of which should facilitate our work, and increase our measure of success.

It is not possible in the narrow limits of this paper, to consider the many phases of the venereal problem. It is my purpose to confine myself to a few points which I believe will materially assist in the crusade now going on.

The first requisite for a successful venereal campaign is the full cooperation of the doctor. He should report promptly all venereal cases for statistics not only denote the prevalence of the disease, but likewise serves as a barometer for the estimation of the result of preventive measures. Prompt and accurate diagnosis means prompt treatment. So the doctor should use special care to differentiate between the various venereal infections, not overlooking the possibility of mixed infection. When in doubt he should

* Read at 40th Annual Meeting Louisiana State Medical Society, Shreveport, La., April 8, 9, 10, 1919.

resort to the laboratory, and once the diagnosis is established he should apply the remedy without delay. Doctors have been accustomed to treat venereal conditions, especially gonorrhea, with levity. The time for this is now past. It is the doctor's duty to educate his patient. He should inform him that he has a serious communicable disease, and impress him with the danger to himself and his neighbor. Finally in order to make the impression deeper and more lasting, he should furnish him a memorandum briefly explaining the nature of his case, the modes of transmission, the serious sequellæ, his personal care and his responsibility to society.

Special attention should be given to the education of youth. Parents should instruct their children regarding sexuality, just as the child has a right to be taught the danger of fire, so has the youth the right to know the dangers of the venereal peril. Sexual hygiene should be taught in the higher grades and particular stress be laid on venereal infection. The screen offers a perfect medium for the illustration of moral and hygienic lessons. Such moving pictures as "Fit to Fight," "The End of the Road," "Damaged Goods," should be shown broadcast. They are not only interesting and instructive but present a vivid portrayal of how venereal infection spreads and its tragic consequences.

A most prolific source of infection is the prostitute. It is essential therefore that they be apprehended, treated and cured. To accomplish this special hospitals are necessary where they can be thoroughly examined, and if found infected they should be treated until they respond negatively to the laboratory tests. The Wassermann reaction should be applied to all except those in whom the clinical signs warrant a positive diagnosis. The City of New Orleans under the direction of the Health Department opened a venereal hospital of 120 beds on June 1, 1918, antedating by one month the passage of the venereal Act by the State Legislature. It was the first venereal hospital of its kind to be operated in the United States as a war measure. The admissions to date were 1,243 of which 144 were treated for gonorrhea and 90 for syphilis.

Facilities for treatment should be offered the general public. Clinics should be established for the diagnosis and treatment of gonorrheal conditions along modern lines. The clinics should likewise include the diagnosis and treatment of syphilis and place

the administration of salvarsan at the disposal of all who cannot afford the price.

The apprehension and cure of the prostitute is not sufficient for the supression of prostitution. Once released from the hospital she habitually returns to her usual mode of living. The reason for this is that she is looked upon as an outcast and experiences difficulty in securing honest employment. There should therefore be reformatories to which the unfortunates could be transferred after they leave the hospital. They should be taught some vocational training and positions secured for them through social service organizations.

Prophylaxis should be generally taught. Some will object on moral grounds, but we must make allowances for human weakness and remember the pit-falls of clandestine prostitution. The wonderful results obtained in the U. S. Navy with prophylactic treatment convinces us of its effectiveness and should prove a powerful weapon in combating venereal diseases.

We have all had the sad experience with syphilis and gonorrhea in the home. This is usually the result of negligence or ignorance. A venereal certificate should be a prerequisite of matrimony. It would act as a safe guard and would tend to save the innocent and further diminish infection. This certificate should state that the holder is free of any clinical signs of venereal diseases and that the usual laboratory test gave negative results.

I realize that the suggestions enumerated above are not free from imperfections. No doubt some will find fault with the plan and declare that it will not eradicate venereal diseases, some will point out that similar crusades waged in European countries have failed and others will urge that any venereal campaign must prove futile, because we are not able to state with absolute certainty when a luetic or gonorrheal patient ceases to be a carrier. Experience teaches us however that venereal cases treated early and carefully respond to treatment and do not usually communicate the disease, the active carriers being the ones not treated or not cured. I feel confident that much good must come from venereal control, even if we prevent only a few cases of blindness, save a few women from the laparotomy table, if we can mitigate or cure the syphilitic taint in the present and future generations I feel our effort will not have been in vain. Some one has aptly said: "When it has been determined that a thing cannot be done, let an American come

on and he will do it." Therefore, it behooves us to join hands and give our full cooperation to the movement and thereby insure its success.

Discussion of Dr. Gelpi's Paper.

Dr. H. W. E. Walter, New Orleans: Speaking from the standpoint of syphilis it might interest the members of this society to know that the Charity Hospital in New Orleans has inaugurated a clinic on syphilis. Heretofore this disease has been treated by the genito-urinary clinics and in many instance in the wards. Of course we know how much syphilis there is, but there is ample room there and the Superintendent decided on this as a central, organized means of administering treatment to indigents with lues. In this syphilis clinic where we treat both races and both sexes of all ages it would be a revelation to any of you men to call there and see what we are attempting to do. We are just in the formative stage, but I feel sure a great deal of good will be accomplished. We have many people in New Orleans who cannot afford to pay for treatment, and in many cases even if they could pay for one dose, one dose is not enough to bring about the desired results. We are working hand in hand with the department of pediatries at the Charity Hospital, and also with the social service department, which in the past has not been all that was desired but which will now probably be a powerful factor for good. We are told by health experts that every American is entitled to health, that everyone is entitled to be well, and certainly at the top of the list we should put the babies that come into the world scarred by the mis-steps of fathers, who are not responsible for their condition, but who in many instances can certainly be helped. The social service department is going through our asylums in New Orleans. These asylums are mostly non-sectarian in character, they have not the means to pay for treatment, so we are going through the asylums and making Wassermanns and studying the little ones. We are giving them what they need when they need it.

I could talk on and on on this subject. There is a great deal of work to be done. But before I stop I want to very cordially invite any member of the society, particularly those in New Orleans, who would like to enlist with us in this work, to come and help us. We need a lot of help. I cannot do the work by myself and the resident staff of our hospital is not large enough to permit sufficient help to be given by the internes. We need your support, we need your assistance in this work. I thought it might be of interest to the society to know that we are cooperating with the government in this work, and the hope is that this treatment may be given gratis to all who deserve it, and that the little ones may have their scars removed.

Dr. William Edler: I was very much interested in Dr. Gelpi's paper because of the fact that I am particularly assigned to this work. One thing I want to impress on this organization so far as venereal disease is concerned: We are not attempting in this fight to start an hysterical crusade against prostitution and against venereal disease. One thing has been reiterated on the floor a number of times; it has been tried, and tried, and tried, and failed. What we are after is to get a sustained effort to fight venereal disease just like we have a

sustained effort to fight plague, typhoid fever, smallpox, etc. To that end—I do not know whether you are familiar with the program of the government to fight venereal disease. There has been a special department created in the Public Health Service called the Department on Venereal Disease, that has its own organization under an Assistant Surgeon General, its own staff of officers, its own building, so that its work will not be a matter of days or weeks or months, but a sustained effort throughout the years until venereal disease is at least under control if it cannot be entirely eradicated.

Another feature of Dr. Gelpi's paper I want to take up is the question of sending the prostitute back into civil life, putting her into the same social environment that originally created her particular occupation. We know from a psychiatrical standpoint that between fifty and sixty per cent. at least of prostitutes are mentally deficient; they are actually mentally below normal; they have not the intelligence of ordinary human beings, and it is because of this fact that they are preyed upon by the general industrial grind and competition of a given community. That factor has made it immensely important in the states that have organized this work well to actually organize reformatories and institutions where these mentally deficient persons can be put, not for a week or a month or a year, but for the rest of their lives. In other words, actually to put them in institutions where their life can be made livable, where they can be trained to do certain work and made self-sustaining in institutional existence. That is the only logical way to handle the problem ultimately. Some of these women who have been forced into prostitution by untoward circumstances can be sent back into their former life on parole. That is the idea the government is working on.

Dr. C. L. Chassaignac: The subject is so vast and complex and so much attention is properly being paid to it nowadays that I think we should lose no occasion to express our views frankly and clearly thereupon. The paper of Dr. Gelpi is very interesting. He brings out his points clearly, but as he says himself it is impossible within the limit of time assigned to consider the various parts of the problem adequately, and all any of us can do further is perhaps to call attention to some features which he has not thought proper to bring out.

I find it most difficult to say anything that is worth while without being entirely too lengthy, so I shall try to limit myself simply to one or two points. One thing I must say, even at the risk of reiterating something which I stated last night, is on the point of prophylaxis. I stated last night that the reason so much stress should be laid on prophylaxis is because it does not interfere with any other measures that are being taken for the control of this disease. I certainly heartily agree with all that has been said in favor of education of the youth. A good deal can be done in that way. More than this, I have been told by young men that their first wrong step was taken through bravado or through the example of someone who treated the subject lightly, stating clearly that they could have resisted the temptation had they known really what the possible price would be. So there is no question that we would be able to limit the spread of this disease if we could make the young men clearly understand the reason for controlling the disease and the importance of the disease.

But further than that, if we ever do want to really control this

disease and absolutely get rid of it, we will have to change our entire way of living; we will have to lead more natural lives. We cannot expect, with the instincts that are implanted in us, to teach the young man on the one hand that he must wait until he has accumulated a certain amount in order to take care of his wife as she has been accustomed to previous to marriage—in other words, that he must have made his success in life before he marries, and expect him to be able to control his instincts during all that time. We will have to change that. If it is going to be safe at all and if we wish to really prevent the spread of this disease—A man ought to be able to marry, to mate properly and purely, when he is sufficiently developed for his full strength to have come unto him. We cannot proceed in the other way socially, hold down these natural instincts, and then expect that a great majority will come out whole in the end. A certain proportion will, but the majority will not. We must not, either, hold the male entirely responsible. Is it tending to the good of the race and to the proper way of living for the female of the species, for instance, to dress as she does today? Do you think there is no inducement at all in the dressing today, and the dancing today, and a great many other things that were taken from where—originally from the under-world? The fashions we see today, the mode of dancing we see today when I was a young man were seen only in places where a young man should not have gone. That is not in favor of keeping up the morals of the young man, keeping him away from temptation.

Now, to come back to prophylaxis. It does not interfere with anything else. We can have education and training and good methods of living, proper methods of dressing, we can control prostitution, but there is absolutely no reason why we should not be prepared to teach prophylaxis to those who notwithstanding the danger **will** expose themselves. I do not mean the prophylaxis that was touched upon last night. I do not believe we are justified in handing out prophylactic packages to men in the army and navy; we do not want to be accessories before the act. But there is no reason, if a man has exposed himself, no matter what the cause—why we should not show him a possible way to prevent the evils that would probably follow this exposure. We are not talking about morals, but nevertheless I cannot think it would mean bad morals because we can sometimes prevent the bad effects of an act which may have been immoral to start with. I believe we can do as much good toward the control of this disease by prophylaxis as by any other measure.

Dr. Jack T. Cappel, Alexandria: I have been especially interested in the prevention of venereal disease in order to save our man-power on the other side. This was especially true in 1917 when we first arrived in France and when our men did not realize the responsibility that was on their shoulders. They had wine everywhere, along with other temptations, but that was the greatest we had to overcome. So the doctors became a bunch of preachers. Every few days we would get our men together and give them a lecture on the prevention of venereal disease. At the same time we had to encourage the use of prophylaxis if they did fall to temptation. Later on, after we entered the first battle or two, our men began to realize the responsibility on their shoulders and they listened more intently to our lectures and we had very little trouble. Then after the armistice there was a great relaxation. The

men said "The war is over, we will have our fun." The only measures we could take then to stop it was to form a labor battalion, and whenever a man developed venereal disease we took him away from his outfit and put him in the labor battalion. A man who has gone through a few battles has something that corresponds to the college spirit, and he would rather endure any punishment than be sent away from his own outfit. That helped us a great deal and we had very little trouble.

In regard to wine, we found out that if our men stayed sober we had very little venereal disease, so we got the General in command of our Division to let us give every man intoxicated one injection for prophylactic, whether he left his divisional area or not, and we reduced venereal disease down to about one-third. I think when the older men get back you will find they are much wiser and better men and there will be very much less disease among them than among the men who did not get a chance to go over.

Dr. Isadore Dyer, New Orleans: The question discussed last night and today is one which has been of interest to me for a good many years, probably receiving more attention from me than from most of you. As long ago as 1899 the evils of venereal disease and the related prostitution had become of sufficient moment throughout the civilized world as to occasion the first and only international congress for the consideration of these matters. That was held in Brussels, and I had the honor and privilege of being a delegate from this society and from the State of Louisiana, and contributed two papers, one of which dealt with the question of prostitution in the United States. Up to that time I believe that was the only survey of prostitution throughout the United States that had been made. It considered a variety of questions, some of which have not been discussed here—some of them economic—and mostly, in the paper which dealt with prostitution particularly, the various incentives and occasions for the trade on the part of those engaged in it. Among the points of interest to me, one upon which I would like to lay stress today and which has not been discussed here, is the question of the age of consent. Some of you who have been members of the society for a long time will recall that at the first meeting of the State Society held in Shreveport, in 1902, I read a paper on the Age of Consent, and in that tabulated the ages of consent under legislative acts in the various States of the Union, showing a large proportion of states in which the age was ridiculously low.

While the prevention of venereal disease is one of supreme importance, and while the methods discussed here are all of value, the question is not going to be solved until it receives consideration from an economic point of view as well as from a medical point of view. I think there is no one point which is of more importance than the awakening of interest among state legislatures, and this should largely be done in the matter of the age of consent. There must be a means of preventing the opportunity for the satisfaction of the lust of man, and if in states like Virginia, North Carolina, Georgia and South Carolina, and for a long time Louisiana, the age remains at ten years, nothing much can be done. The Louisiana legislature has now raised the age of consent to eighteen, but so far as I know it is still ten in the other states mentioned. I have been much interested in this question, having submitted the idea that the control of prostitution and the regulation of the hygiene of sex should be a board of health matter,

and it seems to me that among the most important means of removing temptation from the youth, especially of the southern states, no one factor will contribute more than the raising of the age of consent. If the age of consent of the female remains at ten or twelve, if there is no punishment or penalty, the temptation will remain and the young boys who are just attaining the age of puberty will have opportunity to satisfy their first cry of lust. But until that shall be removed, in the South at least, an important condition remains in the negro as a source of venereal disease. I understand that the failure to remove from the statute books such low age limitation has been largely due to the fact that it might afford the negro opportunity for blackmail. But I think in this enlightened age that evil should not be sufficient to counterbalance the evils which result among the whites.

I would like to emphasize the point made by Dr. Chassaignac—the women on the streets today of all ages—I would say even children, for I have seen them twelve and fifteen years of age on the streets of New Orleans and New York—dressed like prostitutes, with their faces painted so that their own skin cannot be seen behind it, with their eyelashes and eye-brows blackened, with their lips rouged, as if they were parading the streets as an incentive to the members of the male sex to prosecute their lust.

Dr. R. McG. Carruth, New Roads: I would like to urge that practitioners make the patient understand the gravity of these diseases. I have been practicing medicine for thirty-eight years and I have gathered a considerable amount of experience as a country practitioner with regard to the levity with which one of them, gonorrhea, is usually regarded. I have never failed to give my patient, even in the early days of my practice, a lecture on the subject. In general, unless it is some timid boy, people come in smiling, and speak of it as if it were nothing more than a "bad cold" of the urethra;—this is what they sometimes call it. If I have not the time to give these patients a talk then and there, I explain to them I am too busy, and have them come later. Then I explain to the patient what a terrible disease it is; how it has caused more blindness than any other single cause; how it has been the cause of more operations;—that a very large percentage of oeprations on women are due to it. I try to impress upon him the gravity of his condition after I have made an examination of his case. But lately, since the enactment of this new law, I never fail to give him a copy of this law; and if he is a negro and cannot read, I read it to him. I also refuse, and have always refused, to accept a fee in my office as remuneration for one single consultation. I explain to the young man that I charge him a lump sum, generally $25, for the case whether I give him this single consultation and do not see him again, or he comes every day, or every two or three days, for three months. And I do not **guarantee anything,** any more than I would guarantee to cure a mosquito bite; in other words, I have him understand that the cure **rests with him.** So many men consider that as soon as they are relieved,—have no more pain nor discharge, that it is nothing to go around and infect others; they seem to consider that most of those they go with in this way, do not deserve any pity. But this law, if it is enforced, will be of great benefit. I believe we will be able to cure more of our cases than ever before.

Dr. P. J. Gelpi, (closing): I want to thank the gentlemen for their

discussion. When I selected the subject of my paper some time ago it was with the idea that it was a real, live topic, and that the meeting of this society was a favorable place to bring it up. As I intimated in the early part of my paper, it is impossible to deal with all the points that would suggest themselves in considering a subject of this kind. I wish to thank the gentlemen for bringing up severeal other points, and especially by Dr. Chassaignac and Dr. Dyer. I am a great believer in prophylaxis. Some may object on moral grounds, but in a purely scientific question such as that before us I do not believe we should allow the moral side to guide us at all. The idea is to prevent venereal disease, and if we have a prophylactic means by which we can reduce the number of cases I think it is our duty as doctors to offer it to those who for some reason or other may expose themselves to infection.

PERTINENT, CONSTRUCTIVE HEALTH ACTIVITIES.*

By OSCAR DOWLING, M. D., New Orleans, La.

All health activities are pertinent. Those selected for discussion at the meeting of this section have been pertinent through the ages. They are more apparent today, because our "measuring rod" is more exact, therefore, the facts more convincing.

Before an audience of physicians one can speak frankly of venereal diseases and drug addiction. This in itself is advancement, since by frank admission of what exists we may arrive at a common understanding which makes possible unity of effort.

The General Assembly of 1913, in common with legislatures of many other states enacted needed legislation for the control of venereal disease and the sale and dispensing of habit-forming drugs. In the ten months which have passed we have made little progress in those features of venereal disease control which are fundamental and important. At present, in addition to the central laboratory of the State Board of Health in New Orleans, four branch laboratories are in operation. A hospital at Alexandria has been provided for the treatment of women prostitutes. A hospital for male patients will be opened within a few weeks—a clinic also is in operation. Charity Hospital, New Orleans, has recently extended its clinical service—there are now one for syphilis and one for gonorrhea. The Shreveport Charity Hospital may have the provision under way within a few days. In Monroe there are a laboratory and a clinic and in Baton Rouge the laboratory

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work will be extended by establishing a clinic as soon as a force can be obtained.

During the past two months, since Act 61 went into effect only 904 patients have been reported as suffering from gonorrhea, syphilis and chancroid. There should be not less than 20,000 cases on record. As doctors you know more intimately than any one else the number who are suffering from these infections. You realize better than any one else the ravages of the diseases. The sinister menace to our civilization can not be other than apparent to you. I need not ask you to recall the draft records; you are familiar with the figures. They stand a disgraceful charge against us as a nation. To effect any results in control the first requisite is a report from each physician of each patient. Further, a report of the patient who fails to return for treatment and is not being treated by another physician. The establishment of clinics has been retarded because of lack of records which would be proof of the need. Each community thinks the evil is abroad in some other community not their own, or they say show us how many persons are affected with these terrible diseases and if we have them we will help.

That we have condoned and even laughed at the number of men infected is not to our credit; that authorities have permitted and still ignore the spread of venereal disease through licensed prostitution is a social crime.

The medical history of Louisiana—if I may so term it—proves the value of frank recognition of the existence of any infection. For years the policy of secrecy was the patriotic duty of every loyal citizen. What did it avail? In the past there might have been some excuse but today when causative agents are known and the means of control have been demonstrated science and intelligence unite in the demand for action.

Each of the forty-four states is making an effort, more or less, to prevent the spread of these diseases. In some, state boards have almost complete returns of all cases and reports of from 75 to 90 per cent of the "floating" patients. In the latter, almost without exception, the situation has been attacked from the standpoint of contagion. A case of epidemic meningitis is promptly reported and the patient isolated. This is protective—it is a community right. Why not apply to the other infection equally dangerous if

more insidious? Too many persons emphasize the personal side and ignore or fail to grasp the social right to protection.

The U. S. Public Health Service is doing its utmost to back-up the efforts of city and state authorities to get rid of this evil. It is urging those who are active to be more diligent and those who are negligent to move up. Every phase of publicity and assistance that can be effective is being utilized. Taught by the experience of the nations in war, the service realizes what this evil means, and they want every individual in the whole nation to know the dire consequences of infection. The appropriation by Congress of a million dollars to educate the nation on this subject is an unanswerable argument as to its necessity. The states were given their prorata of this appropriation; Louisiana received $18,000.00. In order that next year we may receive an equal amount, the state will have to appropriate on a dollar for dollar basis. The government takes no excuse. It feels that if the citizens are awake to the value of these efforts they will be more than willing to furnish their share of the expense. You will see that it is imperative that we make progress during the present year that our records may show efforts in the right line.

What to do with the addict is another problem which is now demanding attention. The enforcement of Act 252 brought from cover many drug users. They must be provided with the daily dose of the drug of their addiction. The doctor, or some authority, must take the responsibility. It is only humane to provide—temporarily it may be—but to provide these unfortunates with the drug. As in the case of venereal disease, many physicians and many of the laity have an antipathy to the drug user. When we realize that the majority of addicts, perhaps 99 per cent, were in the beginning neurasthenic, neurotic, or otherwise defective, and that possibly, because the physician was ignorant of this fact, the habit was formed, we will have more patience if not sympathy.

Early in April, in every municipality in the State of New York a conference will be held with the health department and mayors and health officers will be asked to establish local clinics at which addicts may be treated by physicians named by the state authorities. It is reported there are 500,000 addicts in the state and that many of them have been the victims of unscrupulous peddlers and physicians who have charged exorbitant prices for the drug and for consultation and treatment. Our experience has proved that

morphine can be bought at wholesale and sold (in solution) at a low cost compared with market prices. Temporarily, we are taking care in New Orleans of more than 300. No treatment other than reduction of the daily amount and examination has been attempted. But the increasing number, the character of the patients, the number of whites and colored, the different ages and sexes make even the simple daily supply a burdensome task. If carried on under the most favorable conditions, it can be considered simply an expedient. In a few other places similar arrangements have been made.

It has been widely suggested that after July 1, the drug addicts will greatly increase. While I do not think we wish to discuss this tonight, it is a phase which makes it incumbent to adopt such precautions as we may think necessary.

As physicians and as citizens we are interested in the civic aspect of the question. The laws are adequate. Their effectiveness is dependent wholly upon the public. With rigid enforcement of the law and the regulations of the Sanitary Code it will take a generation to get headway in the suppression of the venereal infection. Likewise, in the elimination of drug addiction. That a train of physical and mental ills follow in the wake of these evils is conceded; that it is a public duty to prevent sickness, insanity, feeble-minded, blindness and kindred causes which are consequences needs no argument. Further, it need not be added that the physician should lead in the war of extermination. The recent decisions of the Supreme Court, Nos. 367 and 370 are of interest. These relate to violations of the Harrison Narcotic Act. Appeal was made from decisions of the lower courts. 270 makes clear that a physician may not "sell, dispense or distribute" a drug for the purpose of gratifying the appetite of the habitual user." In 370, to the question whether a physician may provide "the user with morphine sufficient to keep him comfortable" the decision is, "to call such an order for the use of morphine a physician's prescription would be so plain a perversion of meaning that no discussion of the subject is required."

A decision of the U. S. Circuit Court of Appeals affirming the decision of the Federal District Court for the western district of Texas was published in the daily press April 4. The article states:

"Physicians and druggists cannot evade the Harrison law by prescribing and filling prescriptions promiscuously for drugs and derivatives of the habit kind to addicts according to the United States court in a decision here, Friday.

The government charged that certain doctors conspired with a druggist, by which they sought to furnish morphine and other derivatives to drug addicts in El Paso on the ground that these addicts were their patients.

Attorneys for the government claimed that the persons served by the two doctors were not patients, but addicts who craved the drug, and who should not be served, as it was contrary to the act.

Lawyers who viewed the verdict said that it meant that no physician could issue a prescription unless he was curing a patient in the future.''

These decisions are clear cut as to the restrictions which are placed upon the practice of prescribing for addicts. There is no alternative but to obey.

I am not unmindful that in Louisiana the tuberculosis situation is acute; that the problem of the feeble-minded presses; that medical supervision of school children is imperative; that better care of mothers and infants should be instituted; that these are not our only pertinent activities, but because of the psychology of the time and the help offered by the national government, measures for relief and treatment of drug addicts and the control of venereal infection seem the lines in which the most headway can be made at present.

Some time ago 48,000 doctors of the United States had approved the venereal disease campaign. In January 42 states were at work with the aid of the allotments. Hawaii has since qualified. These facts give evidence of the general attitude. We can not ignore; whether we will or no, we must approve but approval without zeal in the cause counts for little. The commercial and ethical good of Louisiana will be subserved by prompt, cheerful acquiescence with the government plans and it is up to us as physicians to lead in the enforcement of the laws, state and national, which have been enacted to this end.

DISCUSSION OF DR. DOWLING'S PAPER.

Dr. William Edler: I want to state a practical illustration of the value of reporting venereal disease. About a week ago there came in from a little town in Louisiana reports from two physicians on two patients infected with venereal disease, both getting the infection from a sixteen-year old prostitute. The health officer was immediately wired to have the girl quarantined, and I venture to say in that way saved the state five thousand dollars, because very probably she would have infected as many as ten to twenty men in the next three or four weeks. That is a factor in reporting venereal disease that I do not think you have thought of. I remember one time we had six boys in one village who had all been infected by one syphilitic woman, but at that time we had no law such as we have now. You may be sure that the re-

porting of venereal diseases has more than a mere statistical value, for there are many things going on behind the scenes that you as physicians never know. These reports that you send in are carefully studied and every effort is made to use your report as a basis for preventing a new case of venereal disease.

Dr. M. W. Swords: It is true that in my twelve years of medical experience, my experience with those addicted to the use of drugs was practically nil. I do not believe I knew personally three drug users. Therefore the experience I have lately gathered has been an experience forced upon me, and if my impressions are erroneous it is because of the fact that I have gotten them from an irresponsible source.

When this drug law went into effect there was an avalanche of drug users that came to the offices of the State Board of Health each morning. I never in my life looked upon a more depraved, suffering mass of humanity. It was an awful sight to see these people asking for assistance, dirty, sick, nauseated, faint and hungry, and it occurred to those interested that something must be done. This suffering was not pretended. I want to say to you that no matter whether a drug user is a neurotic or not—(we will not argue the reason for his drug addiction)—but I will say that when this habit is well established the drug becomes an absolutely physiological necessity to the user; he must have it. You can call that psychological if you will, but that drug is absolutely necessary for the proper function of every organ in that man's body. Give it to him, he is bright and alert, his actions are quick and he becomes apparently perfectly normal. Deprive him of it and he is absolutely a menace to himself, he cannot do a thing in the world, he cannot even think. That is the situation we had to cope with.

We first gave them one injection a day, but we soon found that would not do; it would not hold them up until the next day, therefore we had to devise means by which a sufficient quantity of the drug to keep them in a normal state for at least twenty-four hours could be given. Some of them took as much as forty grains a day, usually hypodermically. The majority of them had their regular amount cut in half and this was gradually reduced until they were getting just enough of the drug to keep them in an apparently normal state and enable them to carry on their daily occupation. I will not say that every morphine user is a criminal, but they become criminals if deprived of it. They had to earn in some way the money to pay for their daily allowance—about fifteen grains. There were more than 300 drug addicts in the City of New Orleans of the latter type. It meant that these men were spending between $20 and $30 a day for morphine, and if they earned $7.50 from legitimate sources they were compelled to depend on illegitimate sources for the balance, and it amounted to something like $50,000 to $60,000 a month more than they were earning. They stole the difference. How do I know that? They told me so. That is what we are saving the citizens of New Orleans—between $50,000 and $60,000 a month. We spent last month a little over $3,000. We are paying $12 an ounce and we are selling it to them at cost and a little bit more for overhead expense. This is a big subject.

My experience of the last few months teaches me that about two per cent. users of morphine are criminals, that is were criminals when they began to use morphine. About forty per cent. are criminals from necessity. They have been compelled to go out and steal money to

purchase this drug because it has become an absolute physiological necessity to them. The result is—take a man who earns $7.50 a day. He would spend, even if he gets a prescription from a doctor, $5.00 or $6.00 a day for morphine, and he has $1.50 left for the support of his family. You say something ought to be done with this man. If you deprive him of his morphine he cannot earn the $7.50 a day because he cannot work, and the spending of the $5.00 a day is absolutely necessary in order that his family may have the $1.50. Deprive him of it and he becomes a ward on the state and his family are deprived of the necessities of life. That man is now getting his morphine at about 45 cents or 50 cents a day, and the result is his family is getting practically all his earnings and he is buying new clothes. If you could have seen these people when we first began this clinic and see them now, you would never recognize them as the same pople.

It was said that selling morphine to these people would make New Orleans a haven for drug addicts. But the moment a man applies for drugs he is asked if he has any legitimate means of support. If he says no, we tell him we cannot furnish him this drug until he finds some legitimate means of support; that he must purchase this morphine with clean hands, that we will not accept tainted money in this clinic. He goes out and obtains legitimate employment, comes and buys his morphine with honest money when before he was buying it with dishonest money. In other words, you have taken a bad thing and made a good thing out of it. That man is getting back some of his respect; we are making a better citizen of him. The police say that seventy-five per cent. of the petty thieving has stopped since we have been giving these people this drug. Two U. S. officials happened down there the other day in that particular line. They said they had looked at the daily paper and at the calendar of the courts and noticed the wonderful diminution in petty thieving and wondered why. In trying to find out the cause someone told them of the clinic operated by the State Board of Health. They spent an entire afternoon with us. They said we had found the solution of the petty thieving problem, and it is the only solution of the drug addict problem. You must furnish these people with drugs temporarily until you can establish institutions where they can be placed permanently.

Dr. Oscar Dowling, (closing): There is a regulation of the United States Public Health Service that prevents any individual suffering from gonorrhea or syphilis from going from one state to another without a special permit. If an individual moves from this State to Alabama, Mississippi or Texas he must get from the health department a permit; he then must report to a certain physician, and this physician reports back that he has arrived. Recently there came to New Orleans from another town a man and his wife. We received notice that they were coming and that the woman had gonorrhea and they were to report to a certain physician. We notified the city Board of Health. These people arrived and reported to the physician and are now under treatment and I hope on the way to recovery.

SOME OBSERVATION ON THE DIAGNOSIS AND TREATMENT OF GASTRIC AND DUODENAL ULCER.*

By J. E. KNIGHTON, M. D., Shreveport, La.

It is not my intention to deal with either phase of this subject in an elaborate way, but to discuss briefly some observation with reference to the value of the silk thread test as a diagnostic measure and the practical application of what is known as the Sippy method of treatment.

At the beginning, I want to state that ulcers of the stomach and duodenum are much more common than most of us have been accustomed to believe and if we make a routine practice of bringing to our assistance every means that may contribute to definite and specific knowledge as to our patient's condition, we will all soon come to the same conclusion. As to the silk thread test, you are doubtless all more or less familiar with its application. It consists of a piece of number 15 or 20 braided silk thread of sufficient length that when swallowed the lower end may pass through the stomach and into the duodenum while the upper end is tied into the button hole of the night garment. A small button or shot should be attached to the end of the thread that is swallowed and this is taken at night on retiring, being swallowed with a glass of water just as a capsule or pill is taken. This is withdrawn the next morning for inspection.

If the thread has passed through the stomach and into the duodenum the lower end will be stained yellow from its contact with bile. If an ulcer is present in the esophagus, cardiac orifice, lesser curvature, pylorus, or duodenum there will be also a blood stain on the thread corresponding to the location of the ulcer. If there should be a blood stain without bile stain it suggests that the button failed to pass into the duodenum and that there is an ulcer above that part of the digestive tract.

If the thread shows neither blood nor bile stain it is of no value as it has evidently failed to pass into the duodenum. During the past twelve months I have tried this test in a considerable number of patients and have studied the cases in connection with the X-ray and other diagnostic measures and the results are almost invariably in harmony. An ulcer may be present in the fundus or greater curvature without the thread coming in contact with it and hence

* Read at 40th Annual Meeting Louisiana State Medical Society, Shreveport, La., April 8, 9, 10, 1919.

no stain would be shown. I have seen cases of duodenal and pyloric ulcer, as shown by the X-ray and other methods, which failed to give the blood stain on the thread, but in these cases the bile stain was also absent. This test is of great value when positive results are given, and a positive diagnosis may be made in this way in many cases that would be very difficult of diagnosis by other means. I will exhibit a number of the threads for your inspection which have been used for this test and which will illustrate what I have tried to tell you. When we come to consider the treatment of ulcer, let us assume that there are cases that are amenable to medical or nonsurgical treatment, and in support of this contention I quote from one of our most noted American surgeons, Dr. Arthur Dean Bevan, of Chicago:

"I am convinced that the great majority of gastric ulcers can be cured by proper medical management, and that this should always be our first choice in the handling of the case. There are, of course, a number of conditions that demand surgical management. These I believe to be cases with definite hypertrophic obstruction at the pylorus, cases with a history of repeated serious hemorrhages, and cases in which medical management in spite of being efficiently followed out, is not successful in curing the case."—Surgical Clinics of Chicago, October, 1918, Page 816.

The Sippy method of treatment consists of rest in bed, frequent feedings of small quantities of milk and cream, followed by the administration of alkalies in sufficient quantities to completely neutralize all free hydrochloric acid. Since Sippy published the results of his work about four years ago, I have been following his technic with the most gratifying results in properly selected cases.

It is important to remember that most cases of gastric and duodenal ulcer are associated with or have been associated with some primary focus of infection, and I believe many failures of both medical and surgical treatment are due to the fact that the primary focus of infection has not been discovered and removed.

When a diagnosis of ulcer has been made, a careful investigation of oral and nasal cavities, tonsils, and accessory sinuses should be made to determine the presence or absence of any suppurating process in these locations. If such be found it should have appropriate treatment along with the ulcer treatment if we would get the best results.

I recall a recent case of duodenal ulcer which had made but little progress toward recovery after two weeks treatment when an

X-ray examination of mouth showed a rather large abscess around the root of one tooth. The tooth was extracted and the patient improved from that time, and is apparently well at the present time. We frequently find gastric and duodenal ulcer associated with chronic appendicitis and chronic cholecystitis, and it is a well known fact that these conditions almost invariably produce hyperchlorhydria. Under these circumstances it is almost impossible to get results from medical treatment of the ulcer, probably for the reason that it is so difficult to control the hyperacidity. In conclusion I would like to emphasise the following:

I. There are cases of gastric and duodenal ulcer that may be cured by medical treatment.

II. There are other cases that are purely surgical conditions and valuable time should not be wasted in attempting to treat them otherwise.

III. The essential elements in the nonsurgical treatment of ulcer are rest in bed, frequent feedings, and neutralization of the free hydrochloric acid by means of alkalies.

DISCUSSION.

Dr. Fossier: There are good results from medical as well as surgical treatment in cases of gastric ulcers. I know of these cases which have been operated on three or four times. I do not think that the operation was responsible for the recurrence, but I blame the failure to the lack of proper treatment after the operation. I know a young lady who was operated on four times for gastric ulcer, and invariably a short while after each operation was invited by the operator to a soft shell crab supper. Naturally if we have such dietetic errors we must have recurrences. A relapse of gastric ulcer does not mean that the ulcus was not cured, but usually that the patient did not follow the advice given him.

Dr. Knighton, (closing): The question that suggests itself to us is, how are we to know when an ulcer is cured? I believe most of us would consider a patient cured who had gone six years without symptoms. The case referred to by Dr. Eustis that recurred after six years had probably been well and at this late date developed another ulcer. If not, I would regard it as a very exceptional case. I agree with Dr. Eustis that the ideal operation is to resect or tie off the pylorus in conditions with gastrocolostomy. I believe that surgeons, internists and general practitioners alike have a most profound respect for any statement made by Dr. Arthur Dean Bevan, of Chicago, and when he published the statement which I quoted in the paper, it was after long association with Dr. Sippy and ample opportunity to observe the results of his work.

A DISCUSSION OF URETERAL AND PROSTATIC CALCULI.*

By E. P. MERRITT, M. D., Atlanta, Georgia.

The invitation to come to your city and discuss with you a few medical matters or problems is indeed a source of pleasure as well as a great privilege, I assure you.

The subject which I have chosen is not absolutely new; nevertheless, it is interesting to me and I hope will be to you gentlemen. There are some cases we see that are more or less a mystery to us; oftimes the mystery could be cleared up if we would stray from the beaten path of the diagnostic dictionary, and use some method that seems more acceptable to our individual minds.

Upon the subject of etiology of urinary calculi or stones, we find ourselves standing almost under the same arch as did the workers of a century ago. At intervals some etiological changes or factors have been promulgated, but as far as I know have not been proven.

The uric acid coagulation, the hereditary, the different grades of water, diet, climate, and many other theories are offered; each probably plays a part. The hereditary phase has been of interest to me, as a large percentage of my cases date back to the family history. The majority of investigators are of the belief that most urinary stones get their origin in the kidney. Of course, this does not include the true prostatic stones. My discussion will only deal with ureteral and two cases of prostatic stones. The symptoms will be taken up as the X-ray plates are exhibited.

Ureteral Stones: Give more pain ordinarily than kidney stones. The symptoms vary in such a degree that the diagnosis is sometimes credited to other anatomical abnormalities. It is not so rare to see a patient that has sacrificed the appendix trying to be relieved of a ureteral stone; I have seen two such cases.

The diagnosis of ureteral calculi in some cases gives concern,—for instance, where the X-ray gives negative findings; again where shadows are cast in that region in abundance. Of course this can only be cleared up by use of the cystoscope.

Some physicians argue, leave the stone alone and it will be expelled through the graciousness of nature. This is not always true, as I have removed several that have been in the ureter for

* Read by invitation at the Meeting of the Orleans Parish Medical Society, May 12, 1919. (Received for publication Oct. 10, 1919.—Eds.)

two or more years, giving trouble, not only ureteral pains but causing gradual pathological and destructive changes in the kidneys. The methods I use does no harm to the structures and removes at least 90 per cent of stones in selected cases, and most every case is a selected one.

The non-cutting or cystoscopic method should be tried and given time to show its value, before a surgical interference is resorted to.

A brief review of my method, after diagnosis is established:

The operating cystoscope is inserted into the bladder. Note size and shape of ureteral orifice; if small may be clipped with ureteral scissors to size desired. This done carefully is of no serious consequence. Then the obstruction is located with catheter or ureteral dilator and noted. Then a solution of papaverin or novocain is injected below obstruction, also above, if possible. After this, ureter is thoroughly dilated below obstruction with dilators or forceps. Then about 4 to 6 c.c. of a sterile solution of olive oil is injected. This is repeated every three or four days, as the tenderness subsides. The patient is instructed to drink abundance of water, and if possible take some very fatiguing exercise. Short intervals.

The medicine is given symptomatically.

It was my privilege to include two cases of prostatic calculi of late. One in a middle aged man; the other a young man. The symptoms were various but somewhat unlike.

Both were positive per X-ray.

The older man had eighteen stones in the median lobe. The younger man one small stone in median lobe. The stones could not be palpated per rectum. I feel sure that I have overlooked several such cases because they were negative to the rays.

Those two cases were very much distressed mentally. They gave many urinary symptoms; most prominent among them was frequent urination with much distress at terminal, much burning and distress followed sexual intercourse with the older man.

The cases will not be reported in full here as they would cover many pages. But we must look for some of the uncommon conditions that exist and have more things in mind as we examine patients. I only mention these two cases because I almost "passed them up" for neurasthenics, as they had been passed upon previously.

In conclusion, I wish to commend the good work that the medi-

cal profession is doing in your city in all lines of work. It is my privilege to know of some of the original work that your colleague Dr. Walther has done in the urological field, I heartily congratulate him. I believe the men in the South are as good as the world affords, but it seems that they are very modest in a sense of the word, by not letting their medical knowledge shine out to the world, and taking a bolder stand. I hope I may be forgiven by saying we lack co-operation. The South has given the world some of the greatest men it has had, medically and otherwise. The South, as we may say, is only a part of the greatest nation on earth.

DISCUSSION OF DR. MERRITT'S PAPER.

Dr. Gelpi: I heard with great pleasure the papers of Drs. Englebach and Merritt. Dr. Walther had rightly emphasized the fact that by various devices we are able to avoid operations in the treatement of Urological cases. The X-ray catheter is of great value in verifying X-ray findings. The X-ray shows the shadow and the catheter indicates whether the shadow is in line with the ureter.

A word about the use of olive oil: I have great faith in its usefulness; in one particular instance a patient had for three months repeated attacks of renal colic. Oil was injected about the stone and in about three weeks it passed into the bladder.

This case also upholds the point that you can avoid operations by proper manipulation, for later X-ray examinations showed that the stone was coming down after dilation and the use of oil. The patient evenutually passed the stone.

Dr. H. W. E. Walther: Dr. Merritt's talk on ureteral and prostatic calculi is illuminating and brings forth some work that can be done by cystoscopy in the suspected conditions of ureteral calculi. Advances are being made rapidly in the management of these conditions and although calculi will often pass if left alone, by the aid of mechanical means, patients can be relieved from suffering and the treatment shortened.

Cases of prostatic calculi are of rare occurrence. I have not seen a single case of calculus in a prostate. As far as the ureteral calculi are concerned, they are exceptionally common in the southern part of this country. We see more than any other of three portions of the country put together. The practical means for relieving are so simple that they should be studied out more frequently than they have been in the past.

Dr. C. P. Merritt, (closing): I think next to the prostatic calculi the ureteral stone is the most interesting of all. I would dwell as forcefully as possible on the combined use of the X-ray catheter and olive oil in dilatation, to ensure correct diagnosis. The noting accurately of sign and slope of urethral orifice, if small clipped with urethral scissors to size desired. The use of papaverin or novocain, below and if possible, over obstruction and the use of sterile olive oil every three or four days until exposure of stone.

If after a reasonable time this is not successful, then it will be time enough to resort to surgical interference.

SURGERY OF THE GALLBLADDER.*

By MAURICE J. GELPI, F. A. C. S.,
House Surgeon, Charity Hospital, New Orleans.

In the short time allotted me for the discussion of this enormous subject, my remarks necessarily must be proportionately brief.

While we still occasionally find in our midst a venerable practitioner who proclaims the efficacy of sweet oil for gall stones, persistent gall-bladder disease is generally conceded to be distinctly a surgical condition. Looking at the subject from this standpoint, many important topics naturally present themselves for consideration. For obvious reasons, however, we shall limit ourselves to a brief discussion of three subjects only.

1. Some general considerations in the handling of cases of gall-bladder disease.
2. Cholecystectomy versus Cholecystostomy.
3. Surgical Technique.

General Considerations.

From the diagnostic standpoint, no class of cases requires closer study than the average case of gall-bladder disease, when the clinical history and symptoms are not typical. More or less constant pain and "indigestion" are prominent symptoms. There may be slight jaundice with an occasional rise of temperature. This type of case in particular must be studied from every angle before appropriate treatment can be suggested and the best results obtained. Frequently the only suggestion which can be drawn from the clinical history and superficial examination of the case is that the pathology probably lies somewhere in the right side or at most in the right upper quadrant. This calls for at least an attempt to establish or eliminate especially the presence of gastric or duodenal ulcer and appendicitis.

Sometimes even the cystoscope must be called upon to eliminate the right kidney as the possible source of trouble. I can recall such a case where it was absolutely impossible to determine whether to make the incision in front or behind, without the assistance of the cystoscope.

The case was referred as one of possible gall-bladder disease. The clinical history and symptoms were indefinite but there was a palpable mass extending below the right costal margin, strongly

* Read before the Camp Logan Base Hospital Medical Society, Jan. 15 1918.

suggestive of a hydronephrotic kidney. Outside the usual laboratory and X-ray examinations referable to the stomach, a possible tumor of the colon was eliminated by the X-ray. The negative urinalysis was not sufficient to disprove the presence of a simple hydronephrosis, so that a pyelogram was made with a lead ring surrounding the most prominent portion of the abdominal mass. Although the kidney was found ptosed and slightly hydronephrotic, as the ring shadow proved to be distinctly higher than the kidney pelvis, the problem was thus solved and the condition was attacked from in front. Exploration revealed a removable hydrops of the gall-bladder, six inches in length, containing a number of stones and sand. The case is simply cited to show the importance of thorough investigation of the type of gall-bladder case in question.

This complete investigation, of course, is not so urgent in the case having typical gall-stone colic, where the symptoms are definite, nor in the cases which present the syndrome of cholangeitis with obstruction of the common duct accompanied at each attack by chills, fever, and jaundice. In these cases the indication is usually clear from the start. This is not always the case, however, in the group of so-called "unaccountable jaundice." Though Judd believes that in this type; "Any variation in the jaundice or suggestion of fever or chills, should be an indication for exploration."

In the cases with jaundice, Judd calls attention to the importance of transfusion *before* operation. Calcium lactate in my experience has proven of no definite value. Blood serum would appear to furnish greater possibilities and has been used with definite though not uniform success. My experience with transfusion before operation is nil, but the suggestion is a happy one and certainly worthy of investigation.

As a preparatory measure for operation on gall-bladder cases, especially the septic group, it has been suggested that large doses of soda be given as a routine. My own impression is that such cases do better when sufficient soda is given to alkalinize the urine, when the patients are not starved, and when large quantities of water are allowed. As a post-operative measure a drop of glucose and soda is ordered as a routine. As in other abdominal work, gastric lavage is at times of extreme value.

CHOLECYSTOSTOMY VERSUS CHOLECYSTECTOMY.

The question as to whether the gall-bladder should be removed

or allowed to remain is still under discussion. The tendency in the last ten years has been towards cholecystectomy rather than cholecystostomy. Here as in other conditions the proper course would seem to be to individualize and elect the procedure which obviously offers the greatest possibilities for the case at hand. It would appear as though in the cases of "strawberry" gall-bladder and chronic cholecystitis with or without stones, everything else being equal, the operation of choice should be cholecystectomy. This is particularly true where the inflammatory condition seems to be limited to the gall-bladder alone. In my own hands, where the inflammatory condition in the gall-bladder had not reached a definitely chronic stage, and where there was still a certain bogginess and edema, and where there was more or less acute inflammatory reaction in and around the gall-bladder and ducts, the cases have always done better where cholecystostomy was done primarily even though cholecystectomy was subsequently necessary. Better have a patient partially operated and alive, than thoroughly operated and dead.

In cases where the common duct is drained, the gall-bladder may or may not be removed. If the gall-bladder appears to be functionless it should be removed unless there is a strong probability of stenosis in the common duct. In the presence of a suggestion of pancreatitis the logical procedure would seem to be to preserve the gall-bladder as a safety-valve, though no less an authority than Judd, makes the following statement:

> "Enlargement and hardening of the head of the pancreas is an indication for removal of the gall-bladder in preference to drainage, and this would still hold good in the presence of a slight degree of jaundice, if the jaundice is due to pancreatitis. Cholecystectomy seemingly accomplishes more in cases of pancreatitis associated with gall-bladder conditions than does any other form of treatment. This is probably due to the changes produced in the excretory apparatus by the removal of the gall-bladder."—(J. A. M. A., July 13, 1919.)

This is rather startling to some of us with more limited experience who have been timid in removing the gall-bladder in such cases for fear that subsequent pancreatitis might arise, requiring drainage via the gall-bladder.

Technique.

As regards technique, there are but a few points to which attention will be called. Too much importance cannot be laid on the making of a free incision. There is no work in the abdominal

cavity which requires a better exposure than the surgery of gall-bladder and ducts and there is no region in which it is at times more difficult to obtain. The number of incisions devised is an evidence of this. Whether you select one or the other of the more or less classical incisions such as that of Robson, Moscowitch, Bevan, or Kocher, the object is always the same,—to *see* as well as *feel*.

The simple, long, straight, right rectus, split-muscle incision seems to serve the purpose very well if retraction is applied in the proper direction. Nowhere is it more necessary to follow the old master's injunction to "make the incison twice as long as you think it ought to be, and perhaps you won't have to enlarge it much." This long, right rectus split-muscle incision makes practically all the contents of the cavity accessible, including a low-lying appendix. The retraction should be done with a large, strong retractor placed at the outer upper lip of the incision and the pull should be exerted outward and upward.

If the liver is sufficiently mobile and can be grasped with the gall-bladder, a splendid exposure of the under surface with the gall-bladder and ducts can be obtained, by first pulling the liver downward and then rolling it upward, over the costal margin. Masson assists in this procedure by placing a folded square between the dome of the liver and the diaphragm. Additional exposure can sometimes be obtained by cutting the round ligament of the liver. This can be repaired subsequently.

Apparently good results are obtained irrespective of whether the gall-bladder is removed from the duct toward the fundus or vice-versa. However, considerable assistance can be derived from the use of the gall-bladder as a handle, during the process of extirpation from the duct toward the fundus. In extirpating from the fundus toward the duct there is always present the possibility that, as the duct is approached, the gall-bladder may be detached from its bed and the duct torn before either itself or the cystic artery can be ligated. Of course, this can be obviated by preliminary ligation of the duct and artery, but if this is accomplished, as it is the most difficult part of the procedure of extirpation as a rule, why not continue the dissection from below upward? Furthermore if the dissection is from the fundus toward the duct, the gall-bladder cannot be utilized to hold the liver out of the way until the duct and artery are ligated. As the liver

falls, it obscures the view at the critical moment of the operation. Cholecystectomy from below upward therefore offers distinct technical advantages.

Ordinarily, it seems to be of little moment as to whether the cystic artery is ligated with or without the duct. However, an experience with a case where the ligature apparently cut across the cystic duct in a vomiting spell just a few hours after operation has taught me the advisability of tying each separately whenever it is feasible. When my attention was called to the case referred to I assure you that I slept better that night in the consciousness that there was a separate ligature on the cystic artery.

As a rule the drainage cases that seem to fare best are those in which the drainage is continued for a prolonged period. While postoperative hernias are distinctly less frequent in the upper than in the lower abdomen, prolonged drainage often has a tendency to develop the condition, especially where there is marked flabbiness and attenuation and weakness of the recti and where the general condition of the patient is bad. When it is morally certain that a hernia will develop, a useful procedure is to anticipate it by making use of the closure suggested by Laplace of Philadelphia. The bulk of the incision is closed in the usual way but opposite the drains where the hernia is expected, the skin is approximated to the peritoneum thus forming a pocket on either side of the drain, containing in their normal anatomical relations, the rectus and sheaths. When the tube has been removed for some time, and the drainage is complete this leaves between the gaping skin lips, a granulating surface sealing over the peritoneal cavity. By means of an incision under local, the skin edges are released, the pockets opened and without further dissection, repair of the anatomical planes can be easily brought about, without invasion of the peritoneal cavity. The procedure is more frequently applicable in cases of appendiceal abscess than in gall-bladder cases but even in the latter it has some definite value.

Conclusions.

So as not to impose upon you any longer, I will conclude by again calling your attention to the points which I have endeavored to emphasize.

1. The average atypical case, suspected of gall-bladder disease requires the most painstaking investigation from every possible standpoint.

2. Better operative results are obtainable as a rule when appropriate preliminary preparation has been followed.

3. In the general run of chronic cases of cholecystitis with or without stones, especially if the inflammatory condition is restricted to the gall-bladder in particular, cholecystectomy seems to be the operation of choice.

4. In the average hands primary drainage is better in doubtful cases even at the risk of a secondary operation.

5. It is particularly important to obtain the necessary exposure to *see* as well as *feel*.

6. It is sometimes appropriate to anticipate the formation of a post-operative hernia by a proper closure which allows of easy immediate anatomical restoration.

SKIN DISEASES AMONG THE PORTO RICAN TROOPS.*

By HERMAN GOODMAN, (B. S., M. D., New York).
First Lieutenant, M. C., U. S. A.,
Venereal Officer, Camp Las Casas, Porto Rico.

Although Porto Rico is situated in the tropics, and in our capacity as Venereal Officers we were alert to find all the skin cases among the 12,000 troops stationed here, the past six months have disclosed few instances of dermatological interest. In our routine work, we have personally examined some 7000 men, and our office has seen all the skin conditions arising in the command.

The first dermatological cases seen were instances of the rash of dengue, of which latter we had an epidemic. We owe to Dr. W. W. King, U. S. P. H. S. a full study of this condition which we quote in full from "Clinical types of dengue in Porto Rico," NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, February, 1917.

"Skin—The skin, dry early in the fever, usually became moist, and more or less perspiration continued during the attack. Crisis was often accompanied by profuse sweating.

"An initial rash, definitely marked, was observed twice to my knowledge, but had more cases been seen early enough it might have been noted frequently. It was scarlatiniform, principally upon the body and face, and lasted one day in one case, four days in the other.

"Terminal rash was present in 82 per cent of the twenty-eight patients whom I was able to observe personally at the proper time. The failures were mostly in the milder cases. I was informed of the rash in numerous instances by both physicians and patients, but only too often I was told that it was not looked for, even by the physician. This eruption took three forms; (a) an extensive erythema resembling

* Published with authority from the Surgeon General, U. S. Army.

scarlatina but more patchy; (b) resembling measles and; (c) smaller, darker, more sharply defined macules, in some instances resembling mosquito bites. Rarely was one type seen without association with one or both of the others, giving quite a charasteristic picture. In color, it varied from a brilliancy almost that of scarlet fever to a barely perceptible redness. In one case it was associated with some urticaria to which the patient stated he was subject.

"In distribution, the arms, chest and abdomen were the favorite sites in the order named, but face, neck, thighs, and back were frequently invaded. I saw the entire integument, including palms and soles, involved more than once. In degree, it varied from a few scattered macules to such abundance that the finger could hardly be placed anywhere upon the skin without touching the eruption. It was commonly well marked, but when very slight and indefinite it could easily be overlooked. The time of its appearance in the vast majority of cases was immediately following the final return of the temperature to normal after the terminal rise of fever, i. e. fifth to seventh day. In those cases in which I could reasonably well calculate the day, 50 per cent developed the eruption on the sixth, one as early as the third, and another as late as the ninth day. Duration was from a few hours to several days. I heard of, but did not see, one eruption said to have remained two weeks. Generally it had faded in one or two days.

"Itching was not uncommon, especially when the eruption was fading, and in several it was quite annoying for a day or two, but only after the eruption had been very marked."

We recognized two cases of Frambesia, or Yaws, among the enlisted men. Each already presented the generalized eruption of crusts under which were the strawberry pulpy masses. The *Treponema pertenuis* of Castellani was demonstrated in the lesions from both patients and the Wassermann was four plus positive in both men. One patient was treated with arsenobenzol of Schamberg and the lesions did entirely recede. The presence of of concomitant syphilis must always be considered but the clinical picture and the organism together with the history were definite. The tabulated data of the case treated at the camp is given.

CASE OF YAWS: Private A. R. Age 24. In service two months. Presented about 26 lesions: crusted; umbilicated; dry; under the crusts a moist papular pulp; **Treponema pertenuis** demonstrated in smears.

Wassermann: August 7, 1918, three plus; August 21, 1918, four plus; Sept. 13, 1918, four plus; Dec. 2, 1918, negative.

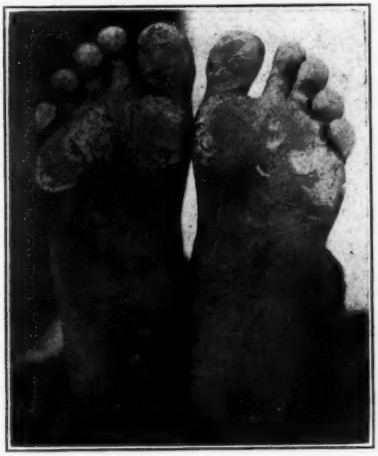
Arsenobenzol: August 22, 1918, 0.3 gm; August 28, 1918, 0.3 gm; Sept. 16, 1918, 0.4 gm.

The delay in initiating treatment was incident to the transfer of the patient to the Base Hospital and his return to the camp.

Our photographs of this case were not good, but the Insular Board of Health has published photographs of cases from a recent epidemic, some of which we enclose.

Pediculosis pubis was found twenty-four times in one regiment

within a few days and, recognizing an impending epidemic, measures were taken which limited the ravages of the pediculus.



YAWS—Published through courtesy of Health Dept. of Porto Rico.

Tinea versicolor flavus is a very common condition. Unlike the Tinea versicolor of the states, there is a variety here which attacks the skin of the face, neck, and shoulders, although it is common to find this variety associated with the type which affects the trunk and limbs. (Compare Footprint, Stelwagon, page 1148, 7th edition.)

Alopecia areata was found, once of the head and another instance of the bearded region. Etiology was not sought for.

Vitiligo is also common in Porto Rico. Extensive cases are seen, as in one soldier, where the only pigment left to his colored skin was some twenty spots on both cheeks, which took on the appearance of marked freckles.

We were much interested in the large number of men who had nevi. Examples of vascular nevi, nevus unius lateris, pigmented nevus, and nevus pilosis could be found in every company examined.

One example of scrotal tongue came to our attention. No history of syphilis; absence of any concomitant signs or symptoms; and a negative Wassermann excluded lues as the origin for this defect. It caused the patient no discomfort.

Psoriasis we have seen but once. To those who adhere to the meat eating origin of this affliction, this statement should bring confirmation since Porto Rico is not a strong meat eating community.

The only case of urticaria seen was in an American officer but lately arrived on the island. Usual treatment brought prompt relief.

Zoster we saw some twelve times. Herpes simplex was common during the epidemic of influenza. Herpes progenitalis was also seen several times.

Pyodermia was found frequently among the recruits. The lower legs and foot were most often affected. Ecthymatous lesions were also present. The habit of going barefoot and the universal uncinariasis account for most of these lesions. Many men during their examination volunteered the information that certain scars about the lower legs, clinically not syphilitic at all, were the results of syphilitic infection. Blood tests in these cases were all negative. We are led to agree with King "of the numerous skin ulcers coming under my notice in Porto Rico, the vast majority have seemed to be due to ordinary pyogenic infections."

Tinea cruris, or the eczema marginatum of the older writers, was encountered about thirty times. King thought this a "very common disease in Porto Rico and is seen with remarkable frequency in persons of excellent sanitary habits." He recognized the unity of this infection with the interdigital eczema recently popularized as Ormsby's Tinea. We have diagnosed tinea of the crural region, armpits, and toes in the same case.

Keloids are far more infrequent than was expected in a population of many full negroes and many more mulattoes. The only interesting keloid seen was one of a vaccination scar.

Some thirty-four cases of leprosy were seen at the Leper Colony just outside the harbor of San Juan. All types were represented. Also a rare case of ulcerating granuloma of the pudenda was seen at the Hospital jail at San Juan.

PROCEEDINGS OF THE AMERICAN SOCIETY OF TROPICAL MEDICINE

ATLANTIC CITY MEETING, JUNE 16-17, 1919.

THE MECHANISM OF THE SPONTANEOUS ELIMINATION OF YELLOW FEVER FROM ENDEMIC CENTERS.

H. R. CARTER, Assistant Surgeon General, U. S. P. H. S.

First: This inquiry is limited to places in regions in which yellow fever is endemic: biologically, to places in which Stegomyia is abundant and active at all seasons: geographically, to tropical America.

The mechanism of its spontaneous elimination from places north or south of this endemic zone is too well known to be discussed—viz.: the death or inactivity of Stegomyia caused by cold weather.

Since the causative parasite does not hibernate (or if so very rarely) in such imagos as do hibernate—in the U. S. at any rate—and since, spite of the findings of the Commission of the Pasteur Institute, the parasite is not from a sanitary standpoint transmitted by the infected mosquito to its progeny developing after a winter, and since no reservoir host exists to carry the parasite over the winter in this territory; naturally, it, the parasite, dies out, and when the insect host again becomes active the next summer there are no parasites to infect it in the community and it is free from yellow fever.

Secondly: It is limited to places in the above regions in which elimination was not due to the sanitary measures taken for this purpose. I say "for this purpose" because all effects are due to causes; and measures, resulting in the elimination of yellow fever, may be considered "sanitary measures," even if they occurred accidentally—or, as we shall find was the case—against the effort of the community affected by them.)

This mechanism by which this has been accomplished is in effect the same as that I have just mentioned—as occurring outside of the endemic zone i. e.—the control of the insect host. It differs from the elimination due to cold weather only by the degree of destruction of Stegomyia and the method of accomplishing this. Indeed, in places far South—as in Key West—the degree of the elimination of Stegomyia by the advent of winter may not exceed that of a well conducted campaign against their breeding places in Panama.

Note that in such places it is not necessary to exterminate Stegomyia to eliminate yellow fever. If the number of mosquitoes be brought below the "critical number" for yellow fever—at that place the disease will die out. Note too—that this critical number for any place will vary directly as the proportion of men immune to yellow fever to the total population.

Thus: if with 100 cases of yellow fever introduced into a community in which all were susceptible to yellow fever, the number of Stegomyia were such that exactly 100 men would be infected from them, the disease would neither die out nor increase. This would be the critical number of Stegomyia for that place and time. With fewer mosquitoes than this, less than 100 men would be infected and the fever would die out. If more, it would increase. Now if one-quarter of the inhabitants are immune to yellow fever, obviously the same number of mosquitoes which infected 100 men before would now infect only 75—one-quarter of their bites going to immunes, and hence wasted—and the disease would die out. The number of mosquitoes required to infect 100 more men, and hence perpetuate the fever, would have to be increased by one-third above the first number.

Obviously then this critical number, below which the Stegomyia must be brought to eliminate fever is less in a town as the proportion of susceptible people increases and more intensive work is required to eliminate it from such a community, other things being equal, than from one in which a large proportion of the population is immune. This will be recalled to you later.

Yellow fever has been driven from the great permanent endemic foci of Havana, Vera Cruz, Panama, Rio, Santos and Para, by sanitary measures—i. e. by control (lessening) of Stegomyia. It has also disappeared from a number of former endemic foci in which no such measures were taken and in which Stegomyia are still abundant and active. This is so well known to you that it only requires mention. Among them I name Georgetown and Demarara in British Guiana—the former the seat of the epidemics of which Blair's invaluable monographs are based. They are free now as are Kingston and Port Royal in Jamaica. Add Port-au-Prince, Jacmel, Cape Haytien and San Domingo, in none of which can sanitation have been a factor for there had been none. Yellow fever was virulent in all four for years—and to the last named is accredited the evil distinction of being the place where this disease

was first introduced to the white race. St. Thomas accounted a danger to naval vessels for many years, as always infected, has been reported free for over 25 years, as has St. Lucia, the site of severe exidemics, except for one epidemic in 1901 from infection introduced from Brazil (Low). Except St. Lucia none of these have, I think, reported yellow fever for from 20 to 30 years.

Havana was freed from yellow fever by sanitary measures—control of Stegomyia breeding. Nothing of the sort was done at Puerto Principe, where there was a sharp epidemic in 1899. I think the same is true of Santiago de Cuba, with an epidemic the same year, but I have less knowledge of the sanitary measures taken there. Cienfuegos and Matanzas, to my positive knowledge, were free from yellow fever long before this sanitary measure was instituted there. All four of these Cuban towns are free now, and have long been free. La Guira—once of evil fame—Maracaibo and Corinto, all formerly infected, have shown no fever for a number of years, and at none was sanitary work done prior to disappearance of the fever. I could add many others.

What is the status of these towns as regards yellow fever? Has the disease simply ceased to *appear*, being still existent, or has it ceased to *exist* in this community? In other words, does the "Spontaneous Elimination" of which I have purposed to show you the "Mechanism" occur. This really is the first proposition to be proven.

The reappearance of fever in certain towns after periods during which it has not been reported has made us, especially those of us charged with Maritime Quarantine, slow to accept a place as free from yellow fever simply because none has been reported there for some time and this without impugning the good faith of the local health authorities. Yellow fever can exist among the children of a town, especially if there be much negro blood among the people, and be scarcely capable of diagnosis. It would practically not be reported among such. Non-report of yellow fever does not of itself imply its non-existence.

We need not consider the old theory that although it is not appearing in man yet the organism is still alive and growing in fomites ready to attack any susceptible man who is exposed to it. And yet I am persuaded that part of this idea—that of the permanence of the condition—is the parent of the concept of "latent yellow fever." That it is carried on indefinitely "in endemic

centers" by "recurrent attacks among the indigenes" is the doctrine of the Commission of the Pasteur Institute. The role of human carriers without symptoms in thus continuing the disease would be added by some writers. This has been further modified by the doctrine of "larval yellow fever; that the strain has been so attenuated by passing through the resistant indigenes that the disease is taken lightly even by new-comers (Europeans) and hence not recognized, although immunizing them. In any case the general belief has been that a town or district infected with yellow fever in the tropics rearely frees itself—that is without sanitation—from the infection.

You see the difficulty. It may not be easy to pronounce such a town free from yellow fever. Have we then no test to determine the presence of yellow fever—the existence of the parasite—in a community? Let us see: The *positive* test is simple and convincing. If a case of yellow fever is contracted in that community, yellow fever exists there. The *negative* must be that people susceptible to yellow fever live in this community and are not found to develop it. Obviously these "controls" must be people in whom yellow fever would be recognized if it occurs and should live so as to be exposed to any yellow fever which may exist therein.

Negative evidence is convincing in proportion to its mass, and to accept this negative test as convincing we must have large numbers of exposures of such people—i. e. many people exposed over a considerable period of time—and the more intimate the local relations with the native population among which the fever is supposed to be latent the better.

With regard to that last condition, however, I would say that in my experience the attempt to isolate any considerable colony of susceptible people in a town in which yellow fever prevails so as to protect them from yellow fever is of only very temporary benefit and doomed to failure. Certainly this is true for soldiers, sailors and workmen.

So far as "larval yellow fever" is concerned, the advocates of this phase of the disease admit—or rather assert—that the passage of the organism through new-comers restores its virulence and the disease becomes recognizable. Prolonged residence then of large numbers of new-comers in the infected environment should do away with this comouflage of the disease—for the existence of which, indeed, I have seen no satisfactory evidence. There is analogy of

work. Isn't this test fair? Let us apply it. I think you will admit Georgetown and Demarara, Kingston and Port Royal as now free from yellow fever without argument. At none of these places was work for the control of Stegomyia done prior to its disappearance. We received men at Ancon who had yellow fever contracted in Corinto in 1905 and '06; when it was also reported at Managua and Valencia. We kept an inspector at Corinto from 1908 to 1912, a man who had not had yellow fever. He reported no yellow fever; no sanitary measures taken and Stegomyia in abundance. In the spring of 1912, 5,000 Marines landed at Corinto, making this place their base of operations. They occupied this place and Managua and Valencia all summer. No yellow fever occurred among them. Could there have been any in Corinto? We have had Marines at Jacmel, at Cape Haytien, at Port-au-Prince and at San Domingo. Prior to this and when we had no control of port sanitation we had naval vessels lying at these ports and landing parties, and no yellow fever among either garrisons, crews or landing parties. Yet in 1905 of two naval vessels lying in Panama Bay, Panama being infected, one became infected—7 cases and 2 deaths—although they took (all) the precautions their regulations called for; certainly more than were possible in the close harbor of Port-au-Prince or when sending armed men ashore. So in Guayaquil—in 1917, I think—one naval vessel lay in the harbor and she developed yellow fever aboard, losing her Commander. All of these Santo Dominican towns had had yellow fever badly and for many years infecting the vessels—naval and others—in their harbors.

In Maracaibo, in 1916, Gen'l Gorgas' party found Americans working the oil wells. There were a large body of them; they were all over the town; they were practically all susceptible to yellow fever and they had been there some 18 months or 2 years. Maracaibo was *alive* with Stegomyia. There had been no yellow fever among the Americans. Obviously there was none in Maracaibo.

Baranquilla is the Caribbean port of entry to the Colombian highland. Through it pass each year some thousands of people susceptible to yellow fever; Colombians from the plateau; Americans and Europeans. These people, going either way, wait in town from one to six days for vessels. No yellow fever has been reported among them since 1907 or 1908. It could scarcely have been missed. Guiteras made a most careful examination of the mortuary records of the town since 1911 and we are sure that yellow fever

has not been prevalent (among the children) since that date. Baranquilla is innocent of any yellow fever sanitation; with it count Cartagena which cannot stay infected and leave Baranquilla free.

Why multiply examples? I could give you a number of others, but I think I have shown that by our test *strictly applied* towns in the tropics *do* free themselves from yellow fever, and that without sanitary work. This is the first part of my proposition.

The examples I have given show that this is not rare. If I had time I could show that it was in no wise uncommon.

By what mechanism is yellow fever thus eliminated? Let us see:

If we assume that one attack of yellow fever gives—usually—a permanent immunity to that disease the argument will be easier to follow, and we will do so. I, myself, believe that this immunity *is* generally permanent—as much as that from small-pox or measles. Other men do not. It will be seen that this assumption of permanence is not essential to the argument for the mechanism presented.

From the known facts of the conveyance of yellow fever, it is obvious that the conditions for the continued existence of yellow fever in a community are three: the parasites, active *Aedes (Stegomyia) calopus,* and susceptible men; all present at the same time—the insects having access to both classes of men.

Parasites exist only in an infected mosquito or in an infected man. They live in the mosquito only during its life, and only a short time—infective to mosquitoes—in man.

Here, then, are two postulates:

1. Since the parasites in the mosquito live only during the life of the host—say, ten days—no interval greater than 10 days may elapse between the date when some sick man is bitten by them, and the date when one of the mosquitoes infected by him feeds on a man susceptible to yellow fever, without the death of the parasites, and hence the extinction of yellow fever in that community.

2. Susceptible people, then, are necessary for the continuance of yellow fever in a community. Such people must not only be present, but must be present under certain conditions of time and place with relation to the Stegomyia infected from other people with yellow fever. If in a community there be no susceptible people fulfilling these conditions, yellow fever will disappear.

Now let us consider a community in the tropics in which yellow fever is present, stegomyia abundant and active at all seasons, and with susceptible people. Parasites, of course, are present in those sick of yellow fever, and, since stegomyia are active all the year round, this place will be an *endemic focus* of yellow fever.

Obviously, if one attack of yellow fever produces in general a permanent immunity, such a community will have in time no people susceptible to yellow fever left, unless there is an introduction of such people. Yellow fever would then disappear, and, as soon as the infected mosquitoes died off (within our 10 days), the parasites would disappear and the community be free from infection. Indeed, yellow fever would doubtless disappear before there were "no people susceptible to yellow fever left," because, under the doctrine of chances, there would be no susceptible people left fulfilling the conditions of time and place mentioned above before there were absolutely none at all—possibly long before. Once free, it would remain free forever, unless the same three factors for conveyance are again brought together. In the natural course of events a new generation would grow up susceptible to yellow fever, susceptible immigrants move in, and stegomyia breed to the limit; but unless the *parasite* be again introduced the community would remain free from yellow fever. In such a community—growing naturally—an epidemic would result if parasites are introduced some years after it has been free of infection, the maximum age of the natives then developing the yellow fever depending on the length of the interval of freedom.

An immigration of susceptible people, then, is necessary for the continuation of yellow fever in a community, and if this immigration fails, or fails to fulfil certain conditions, yellow fever disappears. This mechanism I have called the "elimination of yellow fever by failure of the human host."

This immigration might be of susceptible people from some other place, or of infants born in the place itself. This is just as true an introduction of susceptible people as the other. As old Blair says, they "truly are they new-comers." If these additions to the susceptible population *conjointly* fulfil the conditions necessary for the continuance of yellow fever, as I have stated them, it will continue; if they do not, it will disappear.

The effect in continuing yellow fever of each class of these additions to the susceptible population—men from outside the com-

munity and babies born in it—will depend on many factors, but among others on its amount, increasing for each class as that class increases.

Both classes of immigration, then affect the continuance of yellow fever, and theoretically either one may be sufficient to continue it. Yet the proportional effect of the introduction of an adult and the birth of a baby in keeping up the infection is very different. That of an adult immigrant is very much the greater, so that to supply the people necessary to keep up yellow fever, it requires a very much larger number of babies to be born than of susceptible adult immigrants. In proportion to their number, then adult immigrants are of far more importance in thus keeping up yellow fever than babies, and a town receiving no susceptible immigration needs to be much larger to be a permanent focus of yellow fever than if it did receive such immigration. Indeed Gorgas, in 1916, expressed himself as believing that immigration of susceptible adults was *necessary* to continue yellow fever— that it could not be kept up by the births alone.

This matter is treated of rather fully in a paper read before the London Society of Tropical Medicine and Hygiene, June, 1917.

How does our explanation agree with the known epidemiology of yellow fever and with the facts we have adduced in our first propostion? On this agreement will depend whether we hold it tenable or not. Obviously if our explanation holds, it will be the small and moderate sized towns receiving little immigration which will free themselves of yellow fever; the large cities and those with much susceptible immigration not doing so. And so we find.

1. The towns I have mentioned as freeing themselves of yellow fever are all small, or of moderate size, and out of the way of commerce, receiving little immigration of susceptible people, and this phenomenon is evidently common among such towns.

2. It is the large towns and those with considerable susceptible immigration: Guayaquil, Havana, Vera Cruz, Panama, Rio, etc., which did not free themselves, or are not yet free, from yellow fever.

3. Besides these there are certain communities of small towns between which the travel relations are so close that they must be held, for this mechanism, as a single large town. Indeed, in such a group of inter-related towns the propagation of yellow fever would be decidedly slower than in a single town of their joint population

and the fever would therefor last longer and be less apt to disappear than in the single larger town. Such a section is Yucatan and Campeche—the large sisal haciendas being indeed towns, and this section has not freed itself from yellow fever, but seems to be a permanent endemic focus of yellow fever needing sanitation for its elimination.

4. Also note how towns which were badly infected while prosperous—hence large and with much immigration—as Georgetown and Demarara, Port-au-Prince and Cartagena, become free from yellow fever as their trade declines. And see how Guayaquil reverses this.

5. Also we do find these small towns liable to epidemics of yellow fever from time to time—when a sufficient number of susceptible people have accumulated and the parasite is again introduced—and that when this occurs, as at Buenaventura in 1915 and 1916, "children and people who have moved in during the past 10 years are attacked." The last epidemic here was 12 years previously. The occurrence of epidemics among these native-born is, to me, *proof* that yellow fever has not been general—whether "latent" or not—since they were—say—3 or 4 years old. It had not immunized them.

It is this recurrence of fever which has given rise to the belief in "latent" yellow fever held by many very eminent men. Unquestionably yellow fever may, and (at times) does, exist unrecognized among the native children of a community; showing itself only—or rather being recognized only—when it attacks some stranger. Here we have true recrudescence whenever an influx of strangers occur.

This view is too well known to require elaboration. It is true, and I will not pretend to predicate how long such a condition may last; nor deny that, under some conditions, it may last indefinitely, and by this means alone keep the place or area of communicating places a permanent focus of yellow fever, and without cases occuring sufficiently marked to compel recognition. What I do deny is that this is the rule. Indeed, I believe that it is rather the *rule* for yellow fever to disappear—to disappear completely—from isolated communities of moderate size and this without sanitary work or diminution of Stegomyia.

The instances given prove that the spontaneous disappearance of yellow fever is not rare. An analysis of them, if there were

space, would show that in the absence of adult immigration and of inter-travel—if one may coin a word—among them, this is to be expected to occur in a large proportion of towns, and that after this even when there are influxes of strangers, outbreaks in such towns do not occur, unless they are in communication with some infected focus. These outbreaks then are re-infections and not recrudescences of "latent" or "larval" yellow fever.

I think our explanation then agrees, and agrees completely, with the facts as we have found them and with the known epidemiology of yellow fever. Not only is it consistent with the facts observed, but the deductions from it are in accordance with other facts not hitherto noted, or at least not stressed. On this kind of evidence we are accustomed to accept other laws of nature. I only wish I had time to pile up the accumulation of data which exists—all consonant with that I have given you.

It is obvious that the explanation I have given of the spontaneous elimination of yellow fever depends absolutely on the doctrine that an attack of yellow fever confers immunity against another attack. In proportion as that immunity is permanent and general, the chance of the exhaustion of the susceptible human material by a definite number of cases of fever, that is at a definite time, to the point of causing the disappearance of disease in greater than if the immunity be of short duration and uncertain. If this immunity be not permanent, but yet endures for some time, the disappearance of yellow fever by the mechanism I have outlined can still occur. This is evident. It is also evident that the men in our community who lose their immunity through lapse of time keep up the supply of susceptible material just as immigrants would. In proportion as attacks recur frequently and at short intervals, so will the chance of failure of the human host, to the point of causing disappearance of the disease, diminish. If "frequently recurring attacks of the indigenes" are the rule, and these recurrences are indefinite, they might very well continue the fever indefinitely, independently of immigration or of new births. The *possibility* of disappearance by the mechanism we have given is then not dependent upon the permanance of the immunity given by one attack, but the *chance* of its occurring in any place at any definite time is directly dependent on it, and reaches its maximum when, as we believe, one attack gives permanent immunity. The fre-

quency with which yellow fever has disappeared when immigration was lacking is evidence against recurrent attacks.

Similarly our explanation fails in the presence of a permanent reservoir host for the microorganism of yellow fever infective to stegomyia or otherwise capable of communicating it to man—analogous to those for the trypanosones of sleeping sickness. The existence of animal hosts, other than man, with the same reactions to the parasite as man—i. e. in which an immunity temporary or permanent was caused by an infection—would not seriously affect it. Such animals if present, would simply count as a certain extra number of men.

The evidence for the existence of a permanent reservoir host seems to me to have no basis in observation. That against it or rather against it being an animal associated with man—in the places in which yellow fever has been studied, of necessity negative—is considerable.

Nevertheless, it would be much easier to accept the American origin of yellow fever—for which the historical evidence is very strong—if we had evidence of the existence of such a host in Columbian and pre-Columbian times in the Antillies or on the Caribbean litoral.

One thing we must note, however: The *fact* that yellow fever does disappear from towns in the tropics without sanitary work and with Stegomyia abundant is true. The explanation I have given is logical: it is in accord with what we know of the epidemiology of yellow fever, and I believe it to be true. Nevertheless, it is only a deduction from observed facts—not the facts itself. What do you think of it? I want your views and your criticism.

One other thing: For a town which has freed itself from yellow fever *by the failure of the human host* to remain *permanently* free from yellow fever, *isolation* from infected places is necessary. When yellow fever has been eliminated *by the control of the insect host*, this isolation is not necessary *as long as this control continues to be efficient*, because with the control of the insect host, yellow fever is not communicable, and such parasites as are brought in by infected men or infected mosquitoes would, at the most, establish a very temporary focus of infection. If the control were complete, infected men would transmit no parasites. It is to be noted, however, that the reduction of Stegomyia sufficient to eliminate yellow fever from a town in the tropics would nearly always be less than

that required some years later to prevent its spread, because there will then be a larger proportion of susceptible people than at first. Hence the mosquito control must be more intensive.

It is worth contrasting these two methods for the elimination of yellow fever. That the control of the insect host is unquestionably the method of election for the sanitarian, while the method by which it is eliminated *in nature* is by failure (control) of the human host.

The method by which malaria has been eliminated in nature (i. e. without intentional antimalarial work, as an incident to agricultural progress) is the control of the insect host, the reverse of what has happened for yellow fever.

Note that malaria practically does *not* give parasitic immunity and reservoir hosts (human) are common.

Let me conclude with this thought.

The great diminution of yellow fever which has been going on since the fall of the tropical sugar industry, and which is still in progress, is due to a variety of causes:

1. To the diminished trade and commercial importance of the West India Islands and the Caribbean litoral—and hence diminished immigration to this region.

2. The substitution of steam for sailing vessels has enormously lessened the number of infections (parasites) carried between ports, thus lessening the re-infection of such ports as had cleared themselves of yellow fever. Sailing vessels frequently carried stegomyia as well as infected men, while iron steam vessels very rarely carried the former, and hence, spite of the shortened voyage, were much less efficient in the transport of parasites. Sailing vessels too, lay longer in port; have larger crews per unit of carrying capacity and are under laxer discipline—thus furnishing a much larger number of susceptible men ashore—temporary immigrants—in the ports they visit.

3. With the loss of its commercial importance—indeed before it—came in the diminished strategic importance of the Caribbean Sea and the practical withdrawal of European fleets and garrisons. In the 18th, and the early part of the 19th centuries, the Caribbean was the rendez-vous of the fleets of Great Britain, France and Spain and to an extent of the United States. The war vessels—sailing ships then—lay long in port; some in permanence as Receiving Ships for crews fresh from Europe. They carried large crews—

1,000 men or more—and their shore parties added markedly to the susceptible population of the Caribbean seaports. They were a prime factor in carrying yellow fever from port to port both in infected men and in infected mosquitoes. It is worth noting how very generally the introduction of yellow fever in the different ports is ascribed to a naval vessel.

The rôle of the European garrison, with its frequent drafts from Europe, was the same, but less patent.

4. The extinction of the great permanent foci of Havana, Vera Cruz, Panama and Rio. With this a number of less important places were freed from yellow fever by sanitary work in control of the insect host: Para, Manaos, Iquitos, Pernambuco and Caracas. This enabled such ports, on the Caribbean especially, as could spontaneously free themselves of yellow fever to remain free—being no longer exposed to re-infection, or rather much less so exposed. The smaller ports, freeing themselves from yellow fever from time to time by failure of susceptible people, had been doubtless continually re-infected from the permanent foci, whenever they had accumulated sufficient susceptible material—by birth or immigration—for the spread of the fever.

5. The European war has both restricted foreign immigration and, by the commercial depression it caused, greatly lessened the movement of all people between different towns and from the plateaus to the coast towns—thus both lessened the number of susceptible people in infected places, and by lessening travel limited the chance of spread of infection to places which had cleared themselves of infection. Where the parasite is absent the fever will not recrudesce with a return of prosperity and influx of susceptible people. These have returned to Maracaibo and to some other towns with no outbreak of fever.

It is this diminution of the area infected which make us so hopeful that a well-organized effort against yellow fever will result in its elimination from the earth—its complete elimination never to return. In many places where yellow fever now exists, it will need but a minimal amount of sanitary work to turn the scale against it and eliminate it, and the freeing of one place from yellow fever so frequently prevents infection of another—on endless chain for good. And there has rarely, since it was known to white men, been a time so favorable for making this effort as the present. An attack on a weakened, retreating enemy pressed home, should not admit of

rally, but end in his complete destruction. It is upon these facts that the purposed action of the International Health Board is based. This purpose is this complete, permanent elimination of yellow fever from the globe. This fate has befallen some of the higher forms of animal life, even in historical times, but this will be the first time in which an attempt for this purpose is made against a micro-organism pathogenic to man. Its accomplishment will (I do not say "would") mark an epoch in sanitation. It will make those who have helped in it glad to have lived.

EPIDEMIC OF FEBRILE JAUNDICE IN BARBADOS IN 1919.

By DR. JUAN GUITERAS,
Director of Health, Republic of Cuba.

The present paper is an abstract of a report rendered to the International Health Board of the Rockefeller Foundation, and which I offer to the Society of Tropical Medicine with the permission of the Foundation.

A determination of yellow fever infection in the Island of Barbados was rendered peculiarly difficult and trying by the unusual conditions prevailing on the Island. A form of febrile jaundice with albuminuria, affecting a large number of persons in a West India island, is very suspicious of yellow fever. I was never before confronted with such a situation. I had also to contend with a total absence of death records, so that I was unable to apply my method for the epidemic diagnosis of yellow fever, namely the study of the death rate of children, and from certain diseases.

A Disease of the Black: The disease was confined to the blacks and to the poorer class of blacks. Except for one case which Dr. Gorgas and myself saw autopsied, and one other mild case, also nearly white, the few who were not black were dark mulattoes. There were ten deaths, all blacks, with the exception of the one just mentioned.

Autopsy Findings: The findings in the autopsies were the first basis for the diagnosis of yellow fever made by the local practitioners. If we consider only the naked-eye appearance, such findings were perhaps the most suspicious feature. I saw one autopsy besides that witnessed December 4. The features were the same in both cases: Very dark liver extremely congested blood welling up

profusely on cutting into liver. Four of the ten livers were found in this condition. One was doubtful; it was described as "pale, but not boxwood." The other five were described as "boxwood."

Four of the stomachs contained *black vomit;* one a dark gray fluid containing blood; the other five contained no black vomit. I saw the case with the dark gray fluid. The mucosa of the stomach was pale. It appears to have presented petechiæ (?) in other cases. The cases with black vomit in the stomach had dark livers; the others had pale livers. Only one case presented at the same time black vomit in the stomach with boxwood liver. The spleen was enlarged in one case. Some nephritis is described in all.

The bodies of all ten cases were a very deep yellow in color, the yellow showing under the black and very intense in the sclerotics.

Histological Findings: The histological findings were strongly against yellow fever. The liver cells were rarely fatty, even in the cases in which the liver was described as boxwood. The necrotic areas of liver cells were generally absent. In one case necrotic areas were occasionally seen, quite irregularly distributed. The blood capillaries were distended, some times decidedly so. The short fatal case of five days' duration deserves special attention. The history given below:

Fatal Case of Five Days' Duration: The patient was Joseph Miller, a black, aged 23 years. Had been working in a water trench and was admitted on December 7, with a history of onset of the disease on December 4 with chill, vomiting, and pain in loins. This is the only case seen by me which points distinctly to such pain. Patient thought that on 3d day he vomited once a fluid containing blood. He staggered on admission and was quite weak, but his mind was perfectly clear. Had jaundice and albumin that began to precipitate soon after the examination. At 4 P. M. his temperature was 99.5 and pulse 76. On the morning of December 8 his temperature was 98.4 and pulse 88. In evening, had a temperature of 101 and pulse of 100. He died the following morning early, after a sudden attack of dyspnea. No convulsions. Had been passing urine freely and there had been but a slight increase of the albumin on the 8th. Jaundice quite intense.

Autopsy showed a dark and greatly congested liver. Upon section the blood welled up rapidly, filling the gap. The stomach contained about a pint of dark gray fluid containing some blood. The mucous membrane was swollen and pale without ecchymotic spots. The spleen was much congested. Left lung very much engorged and semi-splenified. Upper right lobe less so, but lower right lobe blanched and completely collapsed. Probably some sudden obstruction of the bronchus—unlooked for—was the cause of death and may explain the short duration of the disease which appeared to be tending toward recovery.

Clinical Features of Cases: The duration of these cases was too

long to warrant a diagnosis of yellow fever. My record of cases in the past shows that the majority of deaths from yellow fever occur on the sixth day. The duration in these ten fatal cases was:

LENGTH OF FATAL CASES.

No.	Days Duration
1	5
1	6
3	7
1	8
1	10
1	12
1	16
1	unknown

Average duration 8.6 days.

The average duration of yellow fever cases terminating in death in Guayaquil, Panama (Buena Ventura), and Trinidad, the only histories at my disposal, was 6.4 days.

The duration of the cases terminating in recovery was likewise too long. In the majority of cases in Havana, the duration of the disease was seven days. Comparing the Barbados cases with those of Guayaquil, Buena Ventura, and Trinidad, the following averages of duration are disclosed:

Barbados cases		13.6 days
Guayaquil, Buena Ventura, Trinidad	cases	7.4 "

Study of Temperature Charts: The charts reveal a tendency to a typhoid type, with occasional occurrence of a secondary rise, described in Weyl's disease, and in the sporadic cases in Havana. The temperature charts are generally quite distinct from yellow fever. Note particularly the chart of Constance Coppin, the last case reported positively, soon after my arrival. There are seven days in succession on which the temperature rises to 104 or over. *No case of yellow fever ever rose to 104 under such circumstances and recovered; yet recovery occurred in this case.*

With regard to *pulse,* though a slow pulse is often noticed, it is generally found rather late, as a consequence of the jaundice. Thus, we do not see the true Faget sign of the diverging lines of temperature and pulse. It is true that the cases generally came in too late for early observation, but this in itself is an indication against yellow fever.

Jaundice: The jaundice in these cases was more intense than in cases of yellow fever; it appeared later and developed very rapidly. Even in light cases the jaundice was very well marked and the urine contained large amounts of bile pigment. In other words, I think there was distinct evidence of an obstructive jaundice. To my knowledge, the stools were white in four of the cases. As a matter of fact, until two deaths occurred on September 22, it was believed by our conferences that the epidemic all over the island was jaundice, without anything extraordinary about the cases except their frequency and the tendency of some of them to be prolonged and to "turn into typhoid," as one of the physicians expressed it.

Vomiting: Vomiting was absent in a considerable number of cases—perhaps one-half. In some cases it was quite persistent. I believe there was no case with characteristic black vomit. One vomit, and perhaps more than one, contained blood, but persistent and projectile vomiting of black liquid, such as is met with in fatal and grave cases of yellow fever, is not mentioned.

Liver and Spleen: The liver and spleen were somewhat enlarged in some cases. The liver was quite tender in several instances—more often than the epigastrium, in the cases that I saw. In this connection it should be remembered that there is no malaria in Barbados.

Albumin: The date of commencement of the albuminuria is in most instances not known. The cases came rather late under observation and, even so, the albumin appeared after admission in some instances. I believe that this symptom appeared later than in yellow fever. It certainly cannot be shown to have appeared on the third day in the majority of instances. In the cases which I tested for albumin the amount was less than the amount in yellow fever in conditions of corresponding gravity. I gather that this was true in examinations made by others also, though some of my friends do not agree with me in this. The *ring test* was frequently employed and I was told that albumin was shown by it and also at times by the *heat* and *acid test.* I believe that the *layer test* may give rise to confusion in concentrated, muddy, and bilious urine, if the latter is not cleared by filtration.

Other Features: The absence of restlessness and of complaint of spontaneous pains in the back, head, and limbs, was a feature of the cases seen. To elicit a history of spontaneous pains required

direct questioning; generally they were said to be in the head. On the other hand, I did not find the tenderness of the muscles that I have observed in sporadic Weyl's diseases. The *mental condition* of the patients was not like that met in yellow fever. The patients were quiet, dull, somewhat depressed, and showed no tendency toward excitement or reasoning and talkative delirium. In the short time at my disposal (eleven days) it was not possible for me to record and present the cases in a systematic manner. I simply observed symptoms and facts from day to day and weighed them with a view to arriving at a diagnosis of the epidemic.

Summary of Cases: I recorded forty-six, concerning some of which I had but few data; at times, only the temperature, and occasionally only the name of the patient. Of the forty-six ten died. This gives a *case mortality of 21.7 per cent.* I am inclined to think, however, that many light cases were not recorded and even cases severer in type that occurred early in the epidemic, so that this case mortality is too high; four to six per cent would, in my estimation, be more nearly correct.

Of the forty-six cases, less than a third were officially reported; twenty-two seen by myself, and perhaps a few other cases, were convalescing. I saw also two post-mortems and examined microscopically the organs in five of the fatal cases from preparations made by the Pathologist of the Central Board of Health, Dr. Johnson, who kindly assisted me in all my investigations.

Distribution: The cases were distributed rather irregularly over many of the parishes. The port town, Bridgetown, was singularly exempt at the beginning of the outbreak. The first rase reported as yellow fever occurred in Saint Andrew's parish, the least accessible parish in the island; the second occurred in Saint George's, likewise the third, though there was no connection between the two; the fourth was in Saint Michael's; the fifth in Saint James and also the sixth.

Some of the cases of jaundice proceeded from the same neighborhood, but very rarely from the same house. Of the ten deaths, Saint Andrew's, Saint James and Saint Michael's each furnished two; the other four deaths came one each from other parishes.

The following table gives a record of the cases reported in the so-called first outbreak which occurred in September:

CASE RECORD: FIRST OUTBREAK.

No. Case	Name	Race	Nativity	Age
1	Thomas Foster	Black	Barbados	60
2	Joseph Smith	"	"	41
3	Arnold Clarke	"	"	12
4	Gertrude Inniss	"	"	31
5	Joseph Small	"	"	50
6	James Walcott	"	"	50

Of these six cases, four living at the time of the *epidemic of 1881;* all were living at the time of the *epidemic of 1908.* Such individuals generally escape in a subsequent epidemic, having been immunized by a previous attack. It is improbable that these individuals, all of them black, and all residents of the country districts in the interior, should be singled out to constitute the first cases of a new outbreak.

Previous Epidemics: Complete records of previous epidemics of yellow fever in Barbados are not available. It is, of course, to be borne in mind that the colored population of Barbados is greatly in excess over the white and that cases of yellow fever among the blacks should be correspondingly common. Yet it has been my observation in other communities where there was a large colored population, in time of yellow fever epidemic, that though many of these blacks may have contracted the disease we have not been cognizant of the fact because the attack was very mild, and the deaths, especially among pure blacks, extremely rare. As examples of such epidemics, I cite the epidemic in Jacksonville in 1888 and the epidemic in Brunswick in 1893 where many years had elapsed since the last previous epidemic and where there was, therefore, a large non-immune population of whites and blacks.

Records of Last Two Epidemics, Barbados: There is no registration of deaths in the island; thus, we know nothing of the mortality statistics for the years which were not epidemic years and very little for the epidemic years. *In 1881* an epidemic affected the British garrison stationed on the island so seriously that the troops had to be removed. An interesting tabulated presentation of the cases treated in 1881 is found in the records of one of the yellow fever hospitals. The notes are those of Dr. St. Claire Browne, and are given below:

YELLOW FEVER HISTORIES, 1881.

Dr. Browne had under his care 36 patients in which the diagnosis

of yellow fever was confirmed. Of these, 11 were whites, 7 colored, 18 blacks. There were 4 fatal cases, all whites. There was also 1 fatal case of pneumonia, supposed, on insufficient ground I believe, to have been yellow fever. It was the case of a black who had persistent high temperature, with slight albuminuria, and jaundice appearing on the 10th day; he died of gangrene of the lungs.

Of the fatal cases, one died on the 6th day, one on the 7th, one on the 9th, one of the 22d. The last is a doubtful case: The post-mortem findings being, "Liver much enlarged, pale, and hard, but congested;" spleen much enlarged; stomach "healthy and empty."

Epidemic of December, 1908: The last epidemic known to be yellow fever occurred in December, 1908. The official record, as far as they go, give a resume of eighty-six cases, with twenty deaths. It is generally understood, however, that the disease was much more widely prevalent than these figures would indicate.

RACE DSTRIBUTION OF CASES, 1908.

Race	No. Cases	Per Cent.
Blacks	39	45.35
Whites	32	37.21
Colored	15	17.44

RACE DISTRIBUTION OF CASE MORTALITY, 1908.

Whites	11	34.37
Blacks	7	17.94
Colored	2	13.30

Statistics According to Population: For purposes of accurate estimation, we have calculated the proportion of cases and deaths in each group of the population. The following table is the result, based on a population in 1908 of 20,000 whites and a total population of 194,000.

PROPORTION OF YELLOW FEVER CASES AND DEATHS PER 100,000 CALCULATED BY RACE GROUPS.

Race	Total No.	No. Yellow Fev. Cases	Propor. per 100,00 of ea. Race Grp.	No. Deaths from Yellow Fever	Propor. per 100,000 of ea. Race Group
Whites	20,000	32	160.00	11	55.00
Blacks and Colored	174,000	54	31.03	9	5.17

Thus, the incidence of yellow fever was decidedly greater in the white race and the death rate was greater still. The difference may be expressed by the following formula:

Relation of colored to whites, by number of cases: 1: 5.15
Relation of colored to whites, by number of deaths: 1: 10.62

Comparison with Recent Epidemics in Other Parts of World: Epidemic jaundice, febrile and infectious, appears to have been more

prevalent in recent years than formerly. *Griessinger's bilious typhoid* is described in recent monographs on the diseases of *Egypt.* There has been an extensive epidemic in the *Italian army* of occupation in *Tripoli;* another epidemic in the army fighting in the *Gallipoli peninsula.* This outbreak appears to have been due to a paratyphoid infection. More recently still, an epidemic in *Japan* has been shown to be a form of spirochetosis; this appears to have been confirmed in connection with a very recent outbreak among the troops in *Flanders.*

Conditions somewhat similar to those prevailing in the armies mentioned may be said to exist, to some extent, at the present time in Barbados. This island is one of the most densely populated countries in the world; the late season has been characterized by the heaviest and most persistent rains in many years; the rise in the price of food stuffs renders it probable that the articles of food for the consumption of the poor have been of poor quality.

In mentioning these three factors—density of pupulation, heavy and persistent rains, and bad food—I am touching upon conditions that may, with some show of reason, be suggested as possible causes of the epidemic. Forms of food poisoning or food infection have been frequently suggested; our own experience in Havana with sporadic cases of grave febrile jaundice point to the probability of infection through the skin by prolonged immersion of the feet in more or less polluted water.

The last heavy rain of the season occurred in Barbados during the first days of December. I remained on the island only eleven days; these were very dry and my impression was that the epidemic was rapidly declining. This impression requires confirmation. The epidemic of yellow fever of 1908-1909 began on the twelfth of December and terminated the following June.

P. S. In the year following the rendering of this report, in 1917, I visited the Island of Curacoa, and was informed by the very competent Bacteriologist, Dr. Watermann, who had been commissioned by the Dutch Government to inaugurate sanitary services in Curacoa, that two negroes had been detained in quarantine, coming from Barbados, during the epidemic above described, as suspects of yellow fever. Dr. Watermann was able to prove in both cases the existance of an infection with the paratyphoid B. bacillus, and has preserved the culture from both cases.

BULLETIN OF THE LOUUISIANA STATE MEDICAL SOCIETY.

Edited by P. T. TALBOT, M. D., Secty-Treas.

The members of the State Medical Society should no doubt be acquainted with the fact that we are making preparations to entertain the American Medical Association in New Orleans on April 26 to 30, 1920.

At a meeting of the Executive Committee held October 13, it was voted to dispense with our regular scientific program at the annual meeting of the Louisiana State Medical Society for 1920, which is also to be held in New Orleans, owing to the proximity of the dates of the meetings of the two organizations. The dates of our meeting were also changed to April 24 and 26, 1920. This will be purely an Executive Session of the Louisiana State Medical Society and House of Delegates, for the purpose of transacting the regular routine business of the Society. It is planned that on the evening of the 26th of April, after completing the business of the Society, the Annual Oration and the address of our President are to be delivered. The meeting will then adjourn for the session, and the members will be permitted to attend the American Medical Association meeting on the 27.

This program was adopted so that those members of the Medical Society attending the State Medical Society meeting could likewise avail themselves of the opportunity to attend the valuable scientific session of the American Medical Association. It was deemed unwise to have the meeting of the Medical Society in the early part of April, in view of the fact that the American Medical Assciation would meet in the latter part of the month, and we felt the members would desire to attend the American Medical Association in preference to the State Medical Society meeting, and we would therefore be lacking in attendance.

We are very anxious that the Louisiana State Medical Society present a good attendance at both of these meetings.

Our representation in the House of Delegates of the American Medical Association will probably depend on our membership roll on January 1, 1920. I would therefore urge upon all of the present members and prospective applicants to send in their dues or applications for membership before that date. We at present have a membership of 903 and feel certain that with the culmination of war and the return of members from service, and with new

applicants, we can easily run this up over a thousand members. Why not every present member of the State Medical Society use his influence to secure at least one new member for the organization?

Letters have recently been sent to the Secretaries of the Component Medical Societies urging upon them the importance of making returns for membership for 1920 at once.

During the last few months the bookkeeping system of the State Medical Society has been completely re-arranged by the installation of a voucher-check system. This has been a long felt need and will add materially to the simplicity and efficiency in keeping up with our finances.

Pursuant with the wishes of the State Medical Society, we have revised and had printed our Constitution and By-Laws. A copy of this revision has been mailed to each member. The office of the Secretary-Treasurer has therefore attempted to clear up all of the minute details of the office resulting from our last annual meeting and we are now in a position to go forward with our plans for the next meeting with the American Medical Association in New Orleans in 1920.

In accordance with the amended Medical Law, all physicians are required to renew annually with the State Board of Medical Examiners in order to be considered as qualified practitioners of medicine. Therefore, unless this is complied with, you will be hindered in obtaining membership in your local organization, and this will therefore curtail membership in the State Society.

As you no doubt well know, in order to become a member of the Medical Society you are obliged to be a duly qualified practitioner of medicine. We are very anxious to get our membership rolls complete and be prepared for the arranging of further plans and assisting in the great meeting of the American Medical Association in 1920. We would therefore solicit your aid by attending to these details of registration and dues as early as consistent.

We will from time to time keep the members in touch with any new developments concerning the next annual meeting, through this medium. We want all of you to prepare to receive a big scientific treat and arrange your affairs accordingly.

By complying with the above request, you will aid this office materially in completing details, so that we may be able to devote more time for other arrangements incident to the approaching meeting of the Society and the American Medical Association.

NEWS AND COMMENT

ANNOUNCEMENT OF HONORARY FELLOWSHIP FOR SURGEON GENERAL.—The Royal College of Surgeons of Edinburg, has conferred on Major-Gen. Merritte W. Ireland, Surgeon-General of the Army, an honorary fellowship.

RESOLUTIONS FAVORING PRENUPTIAL PHYSICAL EXAMINATIONS.—At its meeting in New York, the International Conference of Women Physicians, on October 24, passed resolutions advocating that couples contemplating matrimony present themselves for physical examination before wedlock.

EYE, EAR AND THROAT MEN ELECT OFFICERS.—The following officers were elected at the twenty-fourth annual meeting of the American Academy of Ophthalmology and Oto-Laryngology, held recently in Cleveland: president, Dr. Lee M. Francis, Buffalo; vice-president, Dr. Hal Foster, Kansas City, Mo., secretary, Dr. Luther C. Peter, Philadelphia; treasurer, Dr. Secord H. Large, Cleveland; chief of directors, Dr. Clarence Loeb, Chicago. Kansas City was chosen for the twenty-fith annual meeting to be held October 14-16, 1920.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION ELECTS OFFICERS.—At the annual meeting of said association, held in Louisville, October 21 to 23, the following officers were elected: president, Dr. Frank B. Wynn, Indianapolis; vice-presidents, Drs. Chauncey W. Dowden, Louisville, and Frank Smithies, Chicago; secretary, Dr. Henry Enos Tuley, Louisville (re-elected); and treasurer, Dr. Samuel C. Stanton, Chicago (re-elected). Chicago was chosen as the 1920 meeting place.

RAILWAY SURGEONS ELECT OFFICERS.—At the sixteenth annual meeting of the American Association of Railway surgeons, held in Chicago, October 12 to 17, the following officers were elected: president, Dr. Robert McConaughy, York, Neb.; vice-president, Dr. Isaac F. Harter, Stronghurst, Ill.; Paul E. Gardner, New Hampton, Iowa; George W. Thompson, Winamack, Ind.; treasurer, Dr. Henry B. Jennings, Council Bluffs, Iowa (re-elected); secretary-editor, Dr. Louis J. Mitchell, Chicago (re-elected); and executive board, Drs. Samuel C. Plummer, Chicago, and David Y.

THE REGULAR SEMI-ANNUAL MEETING OF THE FOURTH DISTRICT MEDICAL SOCIETY was held in Shreveport, Oct. 21. The meeting was called to order at 2 P. M., by the president Dr. T. B. Tooke, Belcher, La., and included the following program: Call to order by the president, Dr. T. B. Tooke, Belcher; Invocation, Rev. W. F. O'Kelley, Shreveport; Welcome to Our City, Hon. J. McW. Ford. Mayor of Shreveport; "Welcome Brethren" Dr. J. A. Hendrick, Pres. Shreveport Medical Society, Shreveport; Report of secretary, and unfinished business, Dr. A. A. Herold, Shreveport: Papers read were as follows: "The Wassermann Reaction on the Spinal Fluid in a typical case," by Dr. C. M. Flagg, Shreveport; "Intraspinal Treatment of Syphilis," by Dr. B. C. Garrett, Shreveport; "Epidemic Influenza," by Dr. David B. Davis, Shreveport; "Radium," by Dr. Thos. P. Lloyd, Shreveport; "Report of Some Interesting Urological Cases Seen at U. S. General Hospital No. 14," by Dr. I. B. Rougon, Shreveport; A Discussion of "Tinea Cruris," by W. W. Smith, Shreveport. The following officers were elected for the ensuing year: president, Dr. T. P. Lloyd, Shreveport; 1st vice-president, Dr. S. C. Barrow, Shreveport; 2nd vice-president, Dr. J. C. Yearwood, Caspiana; secretary-treasurer, Dr. A. A. Herold, Shreveport, (re-elected).

THE UNITED STATES CIVIL SERVICE COMMISSION announces an open competitive examination for resident dentist, for men only, on December 9, 1919, at from $2000 to $2500 a year. Applications should be properly executed on Form 1312, excluding the medical and county officer's certificates, and must be filed with the Civil Service Commission, Washington, D. C., prior to the hour of closing business on December 8, 1919.

WOMEN PHYSICIANS ORGANIZE.—At the conference of women physicians held in New York City from September 15 to to October 25, it was decided to form a permanent organization to be called Medical Women's International Association. Temporary headquarters will be at the office of Dr. Esther C. P. Lovejoy, 637 Madison Avenue, New York City. The following officers have been elected: president, Dr. Esther C. P. Lovejoy, New York City; vice-presidents, Drs. Christine Murrell, London, L. Trillier-Landry, Paris, and Kristine Much, Christiania, Norway; corresponding secretary, Dr. Martha Feyler, Lausanne, Switzerland, and treasurer, Dr. Ellen C. Potter, Philadelphia.

Appeal for Louvain University Library.—An appeal sent out by the librarian of Congress, on October 25, sets forth the urgent desire of the University of Louvain for the rehabilitation of their library. Publications of the learned societies of the United States are especially desirable. The Smithsonian Institute has undertaken to forward any material contributed through the International Exchange Service. Contributions should be strongly wrapped or boxed, and plainly marked "The Smithsonian Institution, Washington, D. C., for the University of Louvain," and itemized list of contributions sent to the Smithsonian Institution.

The Amerlcan Red Cross has granted 247 scholarships to American nurses, 109 of whom have recently been released from military service in this country and overseas, to enable them to take training in public health service. Of these scholarships, 123 have been for $300 each, which will permit the recipient to receive a four months' course of training, while the remainder have been for six, eight and nine months' courses. Each nurse is permitted to chose the school where she desires to receive instruction.

Extermination of Typhus in Serbia.—The five-year campaign which the American Red Cross physicians and nurses have conducted in Serbia against typhus fever has ended victoriously. The recent report of the Serbian Government states that there are now only about sixty-five cases in the country, two-thirds being in Belgrade. During 1915, out of a population of 3,000,000 people, 150,000 died from the disease. 150 physicians died, so that there was only one physician to each 75,000 persons. The commission is now directing its efforts toward instilling the principles of hygiene sanitation and nutrition into the minds of the people.

Physicians Victimized.—The *Journal of the A. M. A.*, has been notified by a Jersey City physician that a man has been victimizing members of the profession by taking orders for the Cameron light diagnostic outfit, requiring a deposit in the name of the Dental and Surgical Company, 1807 Franklin Avenue, Philadelphia. A letter sent to the company has been returned "Not Known." The man is described as about 5 feet 6 inches tall, fair, smooth face and smooth tounged.

Kansas City Opens Twelve-Hour Clinic.—The free venereal clinic which opened in Kansas City October 16 has extended its

treatment from 9 A. M. to 9 P. M. The extension of hours has been arranged so that people who work during the day may obtain the treatment. Dr. Edward H. Clark is in charge of the clinic.

New Hospital Dedicated.—On November 13, at Oklahoma City, dedication of the State University Hospital took place. The establishment of this hospital is primarily to serve those citizens of Oklahoma who would otherwise be unable to secure satisfactory hospital service. On order of the County Commissioners, such patients are to receive treatment at a normal cost to the county. Owing to the connection of the hospital with the State University School of Medicine, excellent medical and surgical service is available. A limited number of rooms are available for pay patients at standard rates. The hospital contains 175 beds, of which 25 are in private rooms. There are five large sun porches. Eight wards include separate wards for men and women, and for white and colored persons. Ample laboratories for diagnostic purposes, and a diet kitchen with a dietitian on each floor. The entire equipment is absolutely the best and most modern that can be obtained.

Dr. Wm. Graves of St. Louis Appeals for Human Embryological Material, to serve in his study of "the Scaphoid type of scapula." Fetuses in any and all stages of human development are wanted and it is desired that the material, as soon as possible after delivery, be immersed in 10 per cent formalin in a sealed container, and be forwarded to 727 Metropolitan Bldg., charges collect. Due acknowledgment will be made those forwarding material.

The Samuel D. Gross Prize of Fifteen Hundred Dollars.—Essays will be received in competition for the prize until January 1, 1920. The conditions are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens." Full information may be had by addressing the Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia.

Universal Licenses to Practice.—Representative Mason, of New York, recently introduced in Congress a bill granting licenses

to permit physicians to practice in any State in the Union. It provides that any person who has taken a full four-year course in a recognized medical school and who has been granted a State license, or any person who has practiced medicine for at least five years, may obtain a license to practice in any state on the payment of $10 to the Secretary of the Interior.

THE KENTUCKY STATE BOARD OF HEALTH has adopted as a requirement for application for licensure, two years of premedical work. The new ruling will become effective in 1923.

THE LANE MEDICAL LECTURES this year will be delivered by Dr. Alonzo E. Taylor, Professor of Physiological Chemistry, University of Pennsylvania. Dr. Taylor has chosen for his subject "Feeding of the Nations at War." The lectures will be held in Lane Hall, San Francisco, December 8-12.

FORT MCHENRY HOSPITAL TREATS LARGE NUMBER OF WOUNDED SOLDIERS.—Col. Joseph H. Heller, government inspector of the Fort McHenry hospitals announces that more than 80,000 wounded soldiers returned from overseas service have been treated at the hospital. Col. Heller declared more soldiers has received treatment in Fort McHenry hospital than at any place in the country, and that a greater number had been cured in its wards than elsewhere. The number treated comprises a fifth of the entire expeditionary forces who were wounded. The Col. also asserted that facial reconstruction science had reached perfection.

THE SOUTHERN SURGICAL ASSOCIATION will meet in this city December 16-18, 1919.

BEQUESTS AND DONATIONS.—By the will of R. J. Reynolds, Winston-Salem, $240,000 for improvements, including a five-story fireproof building, has been left the City Hospital, Winston-Salem, N. C.

Columbia, Pa., Hospital has been left $1000, by the will of Benjamin F. Hiestand, Marietta, Pa.

Methodist Home for the Aged and Infirm, Bala, Pa., $3000 and a residence; Methodist Orphanage, Philadelphia, $3000, and Methodist Hospital, Philadelphia, $500, by will of Elizabeth E. Kilburn.

By Mary Wright, Philadelphia, $30,000 is left to Christ Church Hospital, Philadelphia.

Mrs. Margaret Olivia Sage made the following bequests: Women's Hospital, New York City, $1,578,172; Presbyterian Hospital, State Charities Aid Association, and Infirmary for Women and Children, each $776,586; Charity Organization Society of New York, $1,573,172; Mt. Sinai Hospital, $100,000; New York Institute for the Deaf and Dumb, and Servants for the relief of Incurable Cancer, each $20,000.

Hartford, Conn., Hospital, a donation of $50,000 from J. Pierpont Morgan, of New York City.

Rockefeller Institute, New York City, an addition of $10,000,000 to the endowment for additional research in biology, chemistry, physics, and medicine and enlargement of the scope of activity of the institution.

By the will of George W. Elkins, Abington, Pa., Memorial Hospital, and Hahnemann Hospital, Philadelphia, each $500,000.

By the will of Jacob Meyer, Jewish Hospital, $7500 for a free room, and $2500 to be used by the hospital in any way desired. $2500 for the Jewish Foster Home and Orphan Asylum, and $1000 for the Eaglesville, Pa. home for consumptives.

Dr. Frederick R. Green, of Chicago, secretary of the council on health and public instruction of the American Public Health Association attended the meeting of the association held in this city October 27-30. His visit was also to make arrangements for the meeting of the American Medical Association to be held April 26-30, 1920.

The following New Orleans physicians attended the meeting of the Southern Medical Association held at Asheville, N. C., November 10 to 13: Drs. L. L. Cazenavette, Allan Eustis, C. C. Bass, Elizabeth Bass, L. R. DeBuys, S. K. Simon, Randolph Lyons, I. I. Lemann, L. J. Menville, H. Dupuy, O. Dowling, J. B. Guthrie, W. T. Patton, H. B. Gessner, J. T. Crebbin, Isadore Dyer; J. A. Gorman, D. D. S., also attended.

Among the Louisiana physicians who have returned from service since our last list are the following: Drs. W. S. Kerlin, W. H. Hamley, C. A. Bahn, T. T. Batson, W. W. Belden, T. R. Rudolph, W. H. Aiken, R. J. Mailhes, C. H. Sharp, H. T. Simon, J. D. Weis, D. T. Martin, D. H. Trepagnier, C. W. Phillips, V. W. Maxwell, S. B. Lyons.

Among the doctors of New Orleans who have returned from their vacations and resumed practice since our last issue are: Drs. J.

W. Newman, P. Jorda Kahle, H. N. Blum, A. Whitmire, S. F. Mioton.

Removals.—Dr. E. D. Fenner, from 1215 Maison Blanche Bldg., to 1915 St. Charles Ave.

Dr. Hamilton P. Jones, from Maison Blanche Bldg., to Diagnostic Clinic, 3601 Prytania St.

Dr. Robert A. Strong, from Pass Christian, Miss., to 1222 Maison Blanche Bldg.

Dr. William L. Moss, from Athens, Ga., to Harvard Medical School, Dept. of Medicine and Hygiene, Boston, Mass.

Dr. O. H. Burton, from Crystal Springs, to Hot Springs, Ark.

Dr. C. L. Vines, from Crossett, to Pine Bluff, Ark.

Dr. H. F. Harris, from Atlanta, Ga., to Jefferson Medical College, Philadelphia, Pa.

Dr. E. M. Toler, from Alexandria, to Tioga, La.

Dr. C. A. Thompson, Sec.-Treas.-Editor, Journal of the Oklahoma Medical Association, from Surety Bldg., to 508 Barnes Bldg., Muskogee, Okla.

Washington Medical Annals announces its removal from 1115 Clifton St., N. W., to 1244 Eleventh St., N. W., Washington D. C.

Died.—Dr. A. S. Garnett, at Hot Springs, Arkansas, on October 30, 1919. Dr. Garnett has been indentified for many years with the practice of medicine. Born in Virginia, he was graduated from the University of Virginia in 1855. He served in the U. S. Navy until the outbreak of the Civil War, when he entered the Confederate Navy. He was surgeon of the Merrimac in the fight with the Monitor. In 1874 he located in Hot Springs, Arkansas, where he continued to practice until the time of his death from cerebral apoplexy. The Journal joins in recognition of the long and meritorious life of this gentleman who was beloved by his patients and respected by his confreres.

BOOK REVIEWS AND NOTICES

Symptoms and Their Interpretation, by James Mackenzie, M. D., LL. D. (Aber and Edin.) 3rd Edition. Paul Hoeber, New York.

It is a matter of sincere regret to the reviewer that he was not privileged to read the first or the second edition of this work; it is all the more gratifying to have read the third edition now in hand. It is not given to many writers to present their material so that the reader may visualize the objects contemplated by the author. Dr. MacKenzie has this gift and to follow him chapter by chapter is almost as if you might be sitting to his speaking elucidation of his ideas, which are so distinctly presented.

"Precision in thinking and observation are among the rarest qualities." "Methods have become so stereotyped that many observers do not realize that they are fettered in the bonds of tradition." "Symptoms, in respect of concepts, are like the materials used in the construction of an edifice." "The construction of a hypothesis * * * * stimulates the search." "Ill health, or disease, is the discordant action of one or more organs." "The most striking symptoms in disease are produced by reflexes, sensory, motor and organic." With such and more aphoristic reasoning the author brings his book to its purpose, reviewing the symptoms of affections of the various viscera, and correlating the circulation with the great organ, the heart. The angle of observation of the author is different to other texts and, because of the view point, the whole book is full of interest. It is concluded by a chapter on clinical investigation, which broadly pleads for the study of early symptoms, making for the prevention of later signs, more easily recognized

Every page is an evidence of the author's mastery of clinical observation, and everywhere there is some example of his sound philosophy. DYER.

Quarterly Medical Clinics, by Frank Smithies, M. D. Vol. I, No. 2. Medicine and Surgery Publishing Company, St. Louis.

Another collection of interesting cases (XVI to XXVIII) is presented, including "Sleeping Sickness," myocardial weakness, peptic ulcer, arterio-sclerosis, etc. Each is given with history, laboratory findings, special examinations, with a discussion of the case, a review of the disease, and treatment where indicated.

The thoroughness of analysis, with the clinical study embodied in these case histories, makes them especially valuable for reference and study of physicians who are removed from clinics. DYER.

Medical Record Visiting List, Wm. Wood & Co., New York, 1920.

This is the usual physician's diary, visiting list and account book combined. For this year it has been considerably revised. The table of dosage has been arranged to conform with the last revision of the United States Pharmacopeia. Other tables have been modernized and some added. It is presented in red or black morocco, for 30 or 60 patients a week, with or without dates, and for 90 patients a week, with dates only.

It offers a compact and convenient means of keeping records and a fund of ready reference information.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans, for October, 1919.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	2	4	6
Intermittent Fever (Malarial Cachexia)	3	2	5
Smallpox			
Measles	1		1
Scarlet Fever			
Whooping Cough			
Diphtheria and Croup			
Influenza		1	1
Cholera Nostras			
Pyemia and Septicemia			
Tuberculosis	28	22	50
Cancer	19	2	21
Rheumatism and Gout	1		1
Diabetes	3	1	4
Alcoholism			
Encephalitis and Meningitis	7		7
Locomotor Ataxia	1		1
Congestion, Hemorrhage and Softening of Brain	17	9	26
Paralysis	3	2	5
Convulsions of Infancy			
Other Diseases of Infancy	10	11	21
Tetanus	2	1	3
Other Nervous Diseases	4		4
Heart Diseases	47	30	77
Bronchitis	1	1	2
Pneumonia and Broncho-Pneumonia	8	9	17
Other Respiratory Diseases	2	2	4
Ulcer of Stomach		1	1
Other Diseases of the Stomach		1	1
Diarrhea, Dysentery and Enteritis	13	8	21
Hernia, Intestinal Obstruction	3	3	6
Cirrhosis of Liver	4	2	6
Other Diseases of the Liver	7	1	8
Simple Peritonitis			
Appendicitis	6		6
Bright's Disease	9	16	25
Other Genito-Urinary Diseases	12	12	24
Puerperal Diseases	9	4	13
Senile Debility	2	2	4
Suicide	2		2
Injuries	11	19	30
All Other Causes	24	20	44
TOTAL	261	186	447

Still-born Children—White, 14; colored, 15; total, 29.

Population of City (estimated)—White, 283,000; colored, 106,000; total, 389,000

Death Rate per 100 per annum for Month—White, 11.07; colored, 21.00; total, 13.79. Non-residents excluded, 11.04.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean temperature	80.00
Mean atmosphere pressure	30.02
Total precipitation	4.21 inches
Prevailing direction of wind, south.	